VIDEO GAMES™

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OCTOBER 1983
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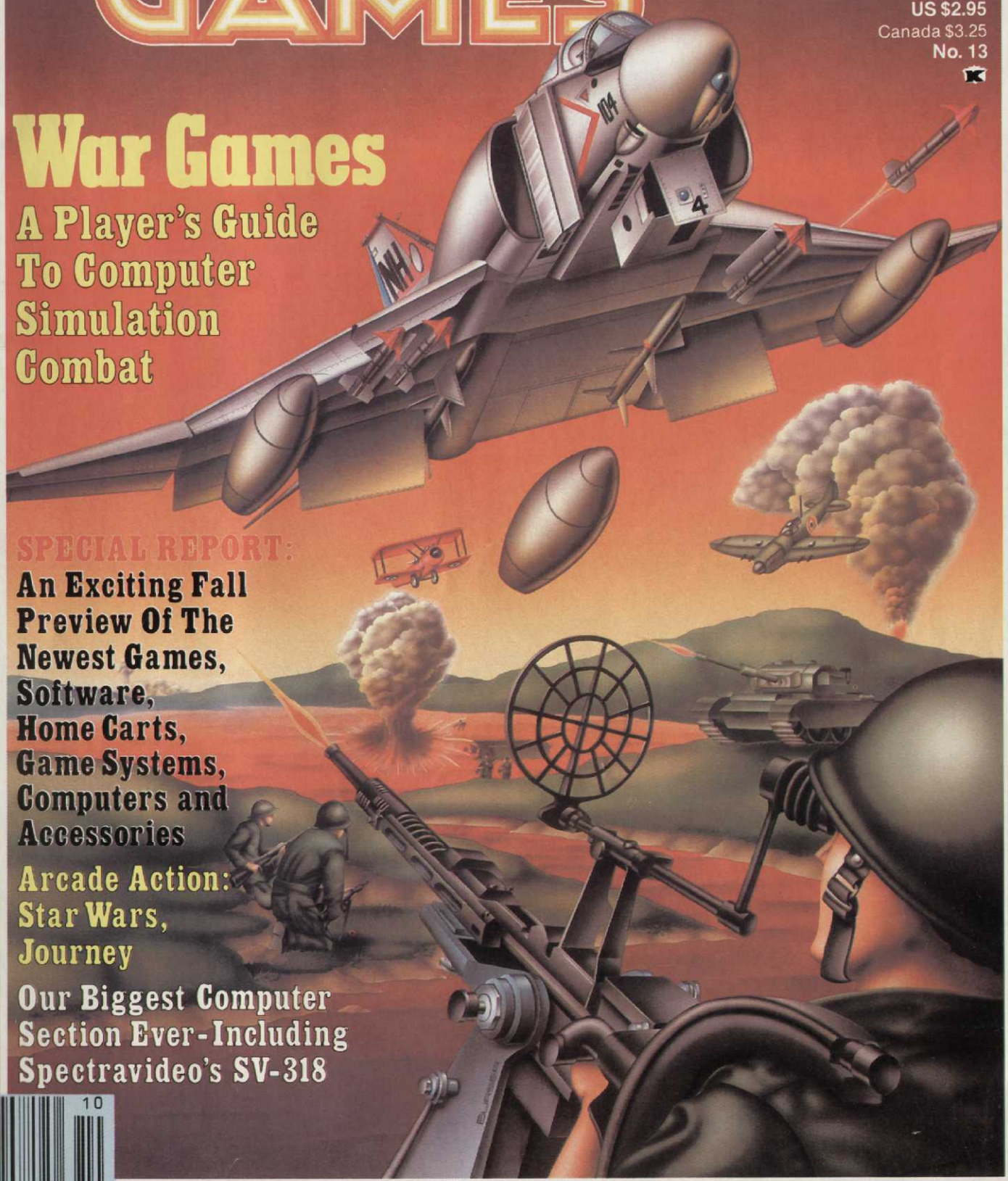

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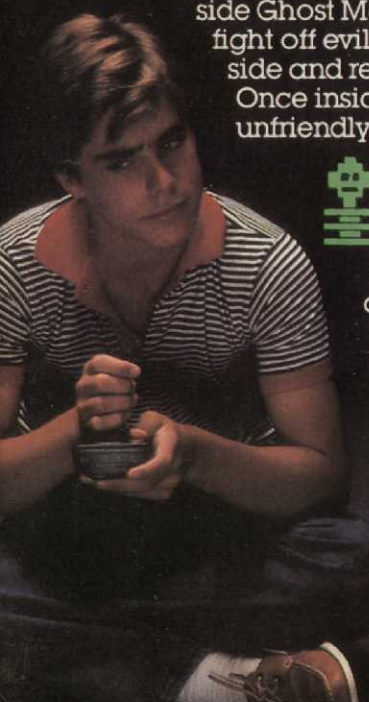

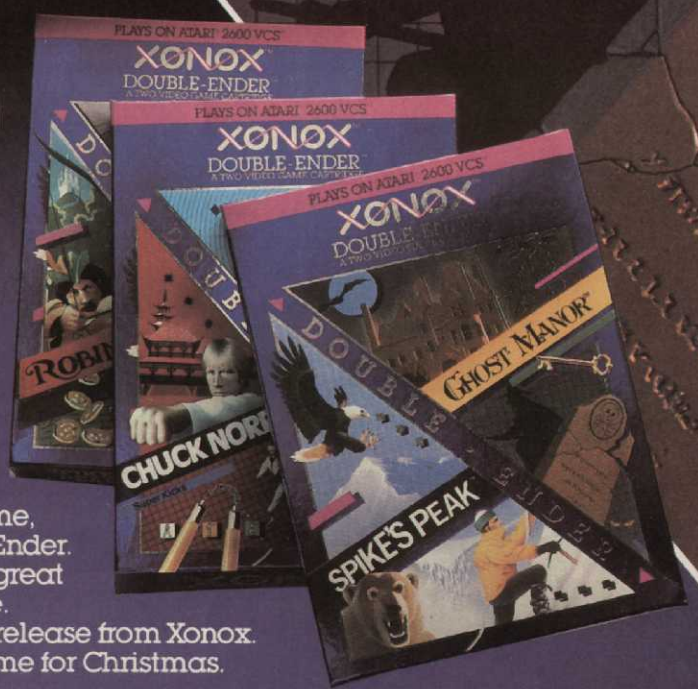

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Introducing five ways to make your Atari® 5200™ more exciting.

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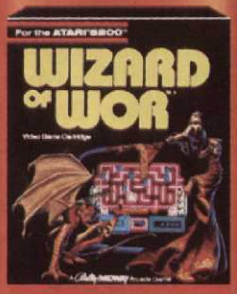

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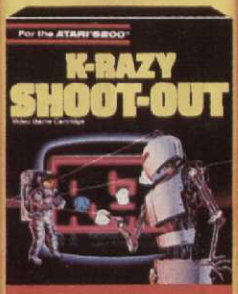

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HYPERSPACE

The last few months we have reported on the incredible changes taking place in the video game industry, both in terms of arcade equipment and development for home systems. You've read about the 'computerization of video games' and the advent of laser disc technology into the game rooms of the country.

In some respects we might be called to task for having been too early in our coverage of given developments. However, one of the problems inherent in doing any monthly news publication is that lead times can often be an enemy as well as an ally. Take our July issue where *Video Games* highlighted the Amusement Operators Expo held in Chicago. In that same magazine we were also the first consumer publication to break with the news about Cinematronics' Dragon's Lair.

Well, that magazine, which was printed soon after the end of the convention in late March, didn't reach you, the readers, until June. As for the machine itself, release of the initial production run didn't hit the streets until the middle of July.

When we learned about the Coleco plan to introduce a computer model of some type back in February, *VG* decided the information was too important to hold back, although the specifics weren't yet known in their entirety. So, in the June issue of *VG* we told contributing editor, Mark Brownstein to piece together what he could from all available sources and at least 'guesstimate' what the Hartford, Connecticut giant had up its sleeve.

As most of us already know, Coleco created ADAM and we sent Mark back to the typewriter to compare what we had done a full five months earlier. On page 66 you'll find out how close we were.

Anyway, the point to these two examples is that *Video Games,* for the past six issues, has endeavored to be there first with all the news as it happens. The problem is whether we're too quick with our coverage and if anybody appreciates or understands the essence of why we do what we do. Even on the pages of "Coin-Op Shop" and "The Flipside" we have tried to bring you the top arcade game as they begin to become available across the country.

The various convention overviews have been undertaken to not only take you behind the scenes of the circus-like atmosphere where the future is being planned, but also to give you close-up looks at the latest products, some of which might not be available for a number of months. In fact, beginning on page 28 you'll find even more to read about fall electronics as we continue with last issue's ("Electrifying Sights" page 34) CES wrap-up.

Since we do have deadlines which can often be as disadvantageous as they are helpful in getting you up-to-date news, we found ourselves in a predicament given your overwhelming response to *VG*'s First Annual Player's Choice Awards. When we conceived this opportunity for you to directly cast your votes for home and arcade favorites, we thought that a few issues would allow us to get a pretty good indication of those special games deserving recognition and we set a deadline of August 30th. However, the races are still to close to call and changing daily, so we've lengthened the deadline to October 31st, effective in this issue. (By the way, if you're interested, on the arcade front, Q*bert holds a tissue paper thin lead over Pole Position and Popeye. For the home Donkey Kong Jr. is leading Pitfall and Donkey Kong by a generous margin, although recent voting shows Centipede closing fast.

Editor

"All you've got to do is go a little higher, a little faster and a little farther than you've ever gone before."

Bruce Jenner, OLYMPIC DECATHLON GOLD MEDALIST

In The Activision Decathlon, designed by David Crane, you hit the screen running.

The moment you grab the joystick your heart races and so do you—running, jumping, vaulting and hurling like never before, through all ten decathlon events.

Amidst the pageantry of a colorful arena, you'll control incredibly realistic athletic motion. But whether you're going against your own record or up to three other athletes, you'll need all the speed and reflexes you've got to earn the gold.

The Activision Decathlon. If you're ready to give it everything you've got and more, let the games begin.

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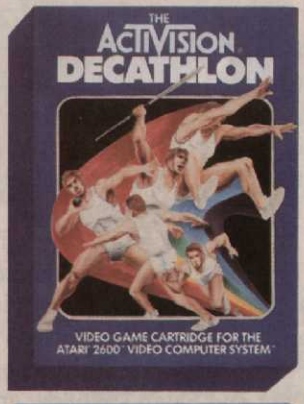

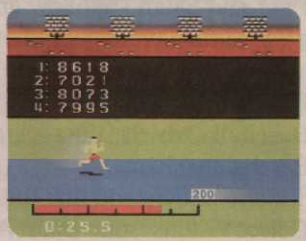

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Double Speak

A Difference of Opinion

This is in reply to Nick Baime's letter (August '83) in which he puts down ColecoVision because he has an Atari 5200. While I also own an Atari 800 computer, I have a ColecoVision and enjoy both. I think Atari has some great games but so does ColecoVision. I would like to know where he gets his sales figures from. I have never seen any sales figures on the 5200. The last I have heard on ColecoVision is 1.3 million. Also, why must the 5200 be more popular; ColecoVision can be expanded into a very powerful computer. It is also coming out with games that far exceed anything the 5200 can come up with so far. The fact of the matter is that Mr. Baime is probably sorry he bought the 5200 instead of ColecoVision because they're coming out with the innovations and Atari is slipping behind right now.

I must commend your magazine for the excellent coverage. I have seen fair and equitable reporting of all products no matter who the manufacturer may be.

Robert D. Strong
San Antonio, Tx.

A Second Look

In response to Nick Baimes' letter (August '83), I have some facts for him to consider.

1) The 5200 is not outselling ColecoVision. ColecoVision has sold over one million units, something the 5200, as of July 1, 1983 has not yet done.

2) ColecoVision has much more "going for it." Where is the 5200 VCS emulator? As of July 1st, it can't be found in the Chicago area. The 5200 doesn't have an expansion interface, meaning any add-on devices will be more expensive. Coleco's trackball will be $10 cheaper and include a cartridge. The 5200 trak-ball won't include a cartridge.

3)I for one, will be very dry-mouthed this summer. 5200's Baseball is an Intellivision look-alike, while ColecoVision's Baseball could well be the most promising sport game ever. Coleco has licensing agreements with Sega, Exidy, Universal, Konami and CBS (Bally/Midway) to produce home games of their arcade games, and last but not least Parker Brothers, Fox, Microfun, Imagic and Sirius Software plan to make games for ColecoVision.

It seems to me the facts speak for themselves in proving which system is superior.

Bob Ritter
Hoffman Estates, Ill.

Nicked Again

I am commenting on a letter printed in August '83 issue concerning ColecoVision and the Atari 5200. I am a ColecoVision owner and I think that ColecoVision is the better system. The Atari 5200 has better resolution (25%). Why don't they use it? Look at the 5200 Kangaroo and you'll notice that the roof under which the baby 'roo is standing looks like low resolution Atari 2600 material! You'll never see anything like that on ColecoVision.

ColecoVision's graphics are more colorful and detailed. Compare Zaxxon with any game from any video system and you'll see why ColecoVision is the best. Coleco has Buck Rogers, Time Pilot and Satan's Hollow among other great games coming out this year. Also, coming this year are the Super Action Controllers, packaged with Contact Baseball which puts Atari 5200's Baseball to shame.

I also understand that there are more ColecoVisions sold than Atari 5200s contradicting what was printed in the last issue. It is plain to see that ColecoVision is the more promising system.

Richard Squibbs
Stratford, Ct.

You're correct. ColecoVision has sold better than the Atari 5200. Also, ColecoVision does have better background resolution than Atari's 5200. And while the 5200 will soon accept an expansion module to allow you to play 2600 games, ColecoVision will also expand in the near future into a technically advanced personal computer system. There are no plans, however, to expand the 5200 into a computer. —Ed.

Wico Woes

I recently purchased a Wico Command Control Trackball for my ColecoVision system that I've equipped with an expansion module which allows me to play all Atari VCS compatible games. To my surprise the trackball failed to function when plugged into either the main unit or the expansion module. I've had both the units and the trackball checked out and there's nothing wrong with either of them.

Jeff Seger
Bronxville, New York

According to Craig Horowitz, Division manager of Wico, "The Wico Trackball will not function with the ColecoVision unit due to its lack of additional power output. Wico is currently developing a Coleco Trackball and will provide the necessary additional power." —Ed.

Address your letters to Doublespeak care of VIDEO GAMES, 350 5th Ave., Suite 6204, New York, N.Y. 10118. Letters that require a personal reply must be accompanied by a self-addressed, stamped envelope.

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Tell us how many tridents are hidden in this ad and how many are on the back of the Fathom™ video game package, and you might win $1000.

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You'll have to search the seas as a porpoise without getting eaten by octopuses. You'll have to change into a seagull and fly over volcanic isles without getting bumped by blackbirds.

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BLIPS

Illustration by Michael Waldman

Sing, Sing

What you're about to read has nothing to do with arcade games, home games, video or anything you've been used to seeing in the magazine. The only similarity is that this creation is *fun*, pure and simple. For anyone who has ever sang in the shower or had fantasies of being a recording artist, *The Singing Machine* from Hal Roach Studios (1600 N. Fairfax Ave., Hollywood, Calif. 90046, 213-850-0525) may be just what you've been looking for. Utilizing the most advanced electronic audio technology in its sound components, and not just another hi-fi or stereo system, The Singing Machine performs the usual functions of recording and playback, but has also been designed for totally different purposes.

The unit is comprised of recording, mixing and playback audio components, powerful PA and speaker systems, specially recorded back-up music with printed song books covering thousands of titles, as well as other features including built-in echo and music pitch control. The list of music available ranges from a wide selection of Broadway show songs from such favorites as *Carousel, My Fair Lady, The Sound of Music* and *South Pacific;* hits from the most popular artists (Stevie Wonder, Donna Summer, Elvis Presley, Willie Nelson, Paul Simon and Barbra Streisand); as well as hundreds of other titles.

Spotlight your talents as a recording artist with The Singing Machine.

There are a number of systems available with a basic model, the SM-3000 providing all you'll need to own your own personal orchestra and

"...COME IN, MOONSWEEPER...ARE YOU THERE?...COME IN.

"...Star Command to all video game players...we have confirmed reports that U.S.S. Moonsweeper was attacked by an alien transport... Moonsweeper last sighted clearing aurora flares on way to rescue Malanium miners on Lunar Alpha Red...she lowered shields, located Alpha Red, and began final approach...we do not know if Moonsweeper was forced into a mining tower

...or was shot down heading for acceleration rings...we do know several enemy destroyers were shot down before communications went dead...proceed to nearest video store and attempt to make contact with Moonsweeper...situation critical...repeat...situation critical...over..."

MOONSWEEPER™ BY IMAGIC

For Atari® 2600.™ Soon for Atari® 5200,™ Intellivision,® ColecoVision,™ VIC-20,™ Atari® Computers and TI-99/4A.

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recording studio. A dual song cartridge allows for simultaneous song playing and cueing while there are also dual microphone inputs and microphone volume controls for one or more performers to try out their vocal capabilities. Weighing just 22 pounds and also battery operated, The Singing Machine gives you the chance to belt out the numbers the rest of the world is waiting to hear. (The model SM-3000 is about $400.)

—Roger C. Sharpe

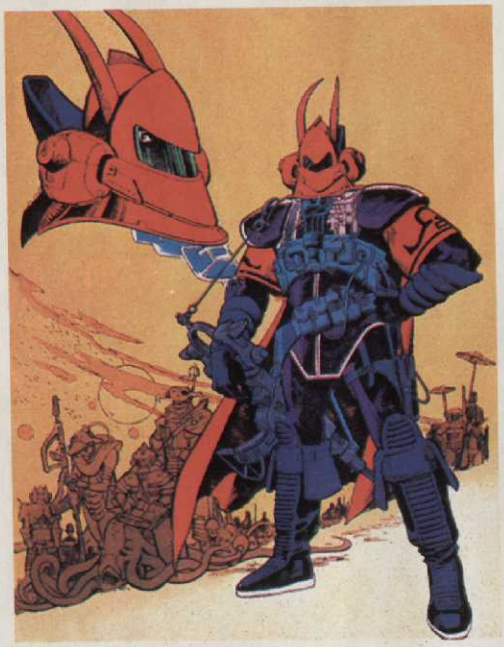
Atari Force: The Adventures Continue

When last we saw Martin Champion and his intrepid band of trackers, they had found another dimension for the ravaged population of future earth to relocate to. The mission done, Champion and his copilot, Lydia Perez, walked arm and arm into the sunset to begin building a new life for themselves, while a new civilization was taking root.

So ended the saga of the *Atari Force*, a five-issue tale prepared for Atari game cartridges by DC Comics Inc. These so-called *In-Packs* were scheduled to be the beginning of a long-running relationship between the two Warner Communications companies, but the plans were put aside late last year when Atari's financial situation began a totally different saga.

Since then, plans for the existing Atari-related material have been bouncing around with two stories set to see print as graphic albums; the first of which, *Star Raiders*, is now out (*Video Games*, July issue). The second, *Warlords*, will be out in time for Christmas. Meanwhile, DC has decided to go ahead with a newsstand *Atari Force* comic.

"The *In-Packs* were designed, and this is not a put-down," writer/creator Gerry Conway says, "as white bread. It was going out to what we estimated to be a million readers and the odds were that most of those people would not be aware of the advances in comic book storytelling and characterization. Now in the *Atari Force* comic book, it's a much broader, much more imaginative book than the *In-Packs*."



Dark Destroyer

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Dart

Editor Andrew Helfer adds, "Everybody at Atari loved the *Atari Force*, but our president Jenette Kahn, and most of the people at DC, felt that we had gone as far as we could go considering there were five humans and they were heading into a kind of brave new world." He points out that in this new dimensional home for mankind, there are myriad alien races, many superior in terms of technology and evolution. It no longer made sense for the *Atari Force* to be comprised only of humans.

The new adventures, which premiere in a 32-page, 75¢ monthly comic next month, take place 25 years after the transplanting of earth's inhabitants. Champion and Perez married and had a child, Tempest. Lydia died during childbirth and for the last 15 or so years, Champion has been trying to cope with her absence. Li-San O'Rourke and Singh also married and produced a child, Dart. The children have been born with unusual abilities as a result of the constant dimension-hopping done by their parents. Tempest can move himself through the multiverse while Dart can see through the multiverse and use her sight to see potential futures. Helfer warns that her accuracy rate is only 75 percent because "the future is always changing."

The duo are joined by others during the first three issues, which Conway is using to introduce the new situation and characters. Several different story lines will come together in a special 48-page fourth issue this January. As the new year begins, the *Atari Force* will be born. The team members will have been brought together by enigmatic Dark Destroyer, who, according to Helfer, is the "antithesis of prosperity. He recollects from his former life that the *Atari Force* defeated him. He's the one who brings them together in the first place so he can try and destroy them. He doesn't count on the presence of these other characters."

Included are several aliens starting with Morphea, who is an insect-type creature, as well as Martin Champion's psychiatrist. Also joining the group is Babe, described by Helfer as a super-strong, large person who is basically a six year old. Then there's Pakrat, a petty thief who stows aboard the Scanner One when it is in a museum. He's still aboard it, avoiding capture, when Tempest leads his newfound friend aboard to steal the ship and confront the Dark Destroyer.

And what of Champion? Conway explains, "He's

somewhat out of his prime. Like so many heroes, his moment has come and gone. Now he has to deal with that for the last 20 years. In his own mind, he's still the protagonist and star. He is very involved with the *Atari Force* and is not exactly their leader." Helfer says part of Champion's problem is caused by something with his son, a plot point to be explored in future stories.

Pakrat

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Tempest

Morphea

Both creators feel there is a rich tapestry to be explored in the multiverse but all the story elements will not come from Atari games. Some will, Conway promises, when they fit. "The other problem with the *In-Pack* books," he says, "was the desire to tie them into the game structure. To do that successfully, the book needed a three month lead time while the games needed only four weeks and the programmers were always reworking the game right up until the last minute."

Handling the graphics will be Jose Luis Garcia-Lopez, a talented artist who had finished the *Star Raiders* graphic album just prior to beginning redesigning the *Atari Force*. This will represent Lopez's first regular comics assignment and Helfer expects his popularity to grow by leaps and bounds through his Atari connection.

It's a new world with new races to meet and new dangers to conquer. Will the brand new *Atari Force* be ready for the challenge? DC hopes so and are expecting a long life for their latest super-team series. —*Richard Goodwin*

"The Atari Force: Martin Champion, Lydia Perez, Star Raiders, Warlords, Tempest, Li-San O'Rourke, Singh, Dart, Dark Destroyer, Morphea, Babe and Pakrat are Trademarks of Atari, Inc."

Symbols of Recognition

Want to show off your talents as the best Video Fighter Pilot around but the high-score-to-date screens aren't enough? Well, now you can spruce up your wardrobe and wall (not to mention your ego!) through a new product called The Video Recognition Pack from Kropp Enterprises, Inc.

The Video Fighter Pack consists of an iron-on patch, an 8x10 wall certificate in parchment-type stock and wallet-sized ID card. As a Commissioned Video Fighter Pilot in Alpha Squadron, you are sworn to engage all hostile spacecraft in any home, computer or arcade video atmosphere.

"The products our company designed for those who play video games," said Mike Kropp, president of the company, "are generic in nature. This is so they can be used for all types of space-battle games. We are also developing other types of recognition kits to appeal to other types of game play (racing, etc.)."

So, all video pilots who are looking for more recognition than just their initials on a screen, the kit sells for $2.98 (plus 50¢ shipping). Orders can be placed by sending away to Kropp Enterprises, Inc., P.O. Box 656, Clermont, Florida 32711.

Blowing Bubbles Forever

If video games are gumming up your life, Topps has come up with two new ways to stick it to you. One is Video City rub off cards with six of the all-time favorite coin-op games featured including Zaxxon, Donkey Kong, Q*bert, Frogger, Centipede and Turbo. Each package contains three rub off cards and three sticker cards. The rub off ones show scenes from the video games, which can be played just like their arcade forebears by rubbing off the dots in the correct sequence. You also get stickers of the video game characters in various predicaments they encounter during play. Unlike other bubble gum cards, what's great about these packages is that no two are alike. Topps has put a variety of different games into each package so that you're assured of getting at least one new game with each purchase. (About 30¢.)

Another addition to the ranks is called Video Arcade Bubble Gum. These small, brightly colored pieces of bubble gum come in a container which looks like the arcade game consoles right down to the realistic graphics on the screen. And you can choose from Q*bert, Zaxxon, Donkey Kong, Donkey Kong, Jr., Frogger and Centipede. When the gum is all gone, and the last bubble has burst, these boxes can make wonderful collector's items. (About 50¢.)—*Melinda Glass*

Photo by R.P. Sefcik

A Game to Sink Your Teeth Into

If anyone tells you to brush up on your video game playing they may mean it literally, thanks to Commodore's latest video venture, Tooth Invaders.

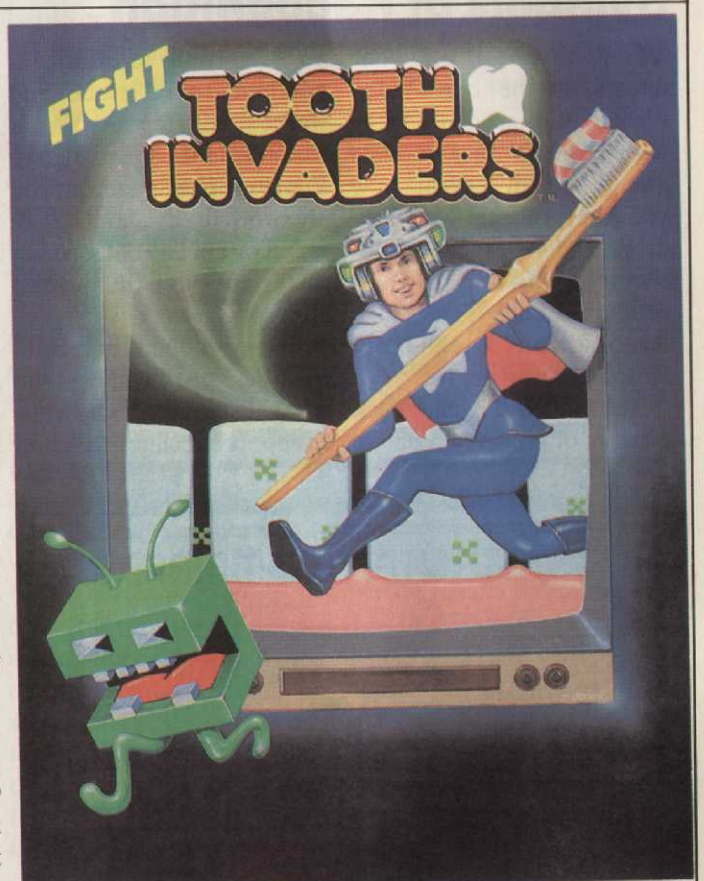
Developed for the Commodore 64, and in cooperation with the American Dental Association, Tooth Invaders is an excellent example of how computer video games can be used constructively to achieve important health goals—in this instance, dental hygiene.

"Dentists and parents traditionally have a tough time teaching dental hygiene to children," explained Bill Wade, Commodore's software director. "Tooth Invaders, however, combines the fun of a video game with the most important principles of dental care. Already more than 2,000 dentists have ordered the Commodore 64 and Tooth Invaders game for use in their offices," he said.

In the game, our hero Plaque-man must remove all the plaque that has been deposited on the "video teeth" by a villainous D.K. Germ. Plaque-man, though, is armed (to the teeth) with his trusty weapons: toothbrush, toothpaste, dental floss and last, but not least, flouride rinse. The game's motto is: "A Clean Tooth Will Not Decay!" And to prove that point, these characters teach the proper brushing techniques and the dangers of plaque buildup.

Tooth Invaders has fast-action, exciting graphics, sound effects and, yes, even 9 levels of difficulty, but most important of all it shows that you can, indeed, brush many of your troubles away.

—*Pat Canole*



In Commodore's Tooth Invaders, Plaque-Man comes to the rescue banishing the villainous D.K. Germ.

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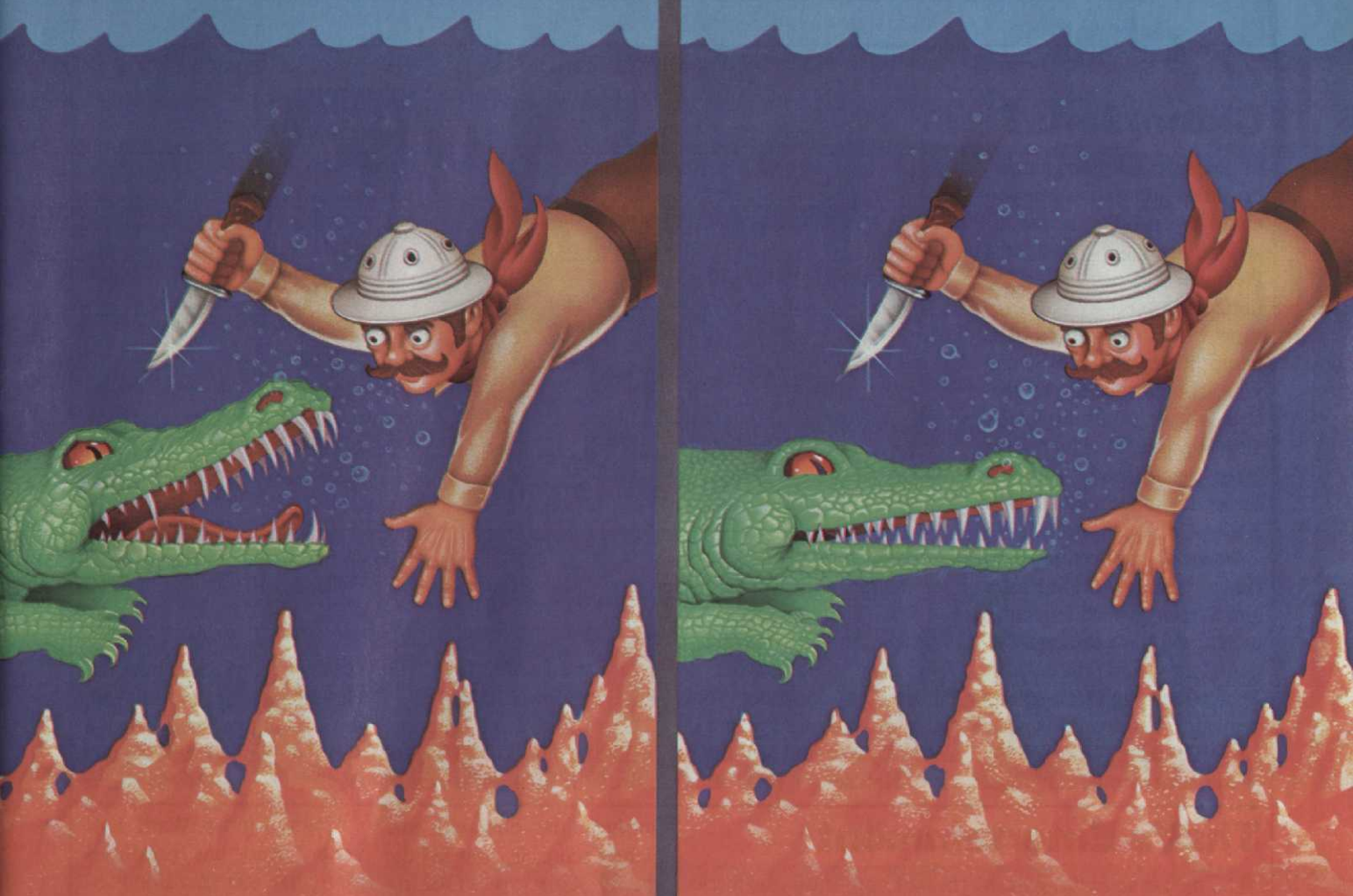


Which player is snatching victory from the jaws of defeat?

Find out fast. Jungle Hunt is so much like the arcade, you can't go in green. Like the player on the left. He'll get snapped up by the crocodile with the wide open mouth. But get the croc with the partly open mouth and score 200 points, like the player on the right.

Only Atari makes Jungle Hunt for use with the ATARI® 2600™ Game, Sears Video Arcade† systems, and a version exclusively for the ATARI 5200™ SuperSystem.

So explore the stores for Jungle Hunt. And learn it like a native.

Here comes Jungle Hunt from Atari.

A Warner Communications Company

Breakfast of Champions?

Illustration by Michael Waldman

If you're a true video gamer, breakfast just eats up time you could be spending at the arcade. But eating Quaker Oats' Halfsies™ cereal for breakfast could let you play more of your favorite arcade game than ever. Not by giving you some special finger-strengthening vitamin, but by allowing you to win one of three Sega arcade games—Super Zaxxon, Pengo, or Star Trek—for your very own.

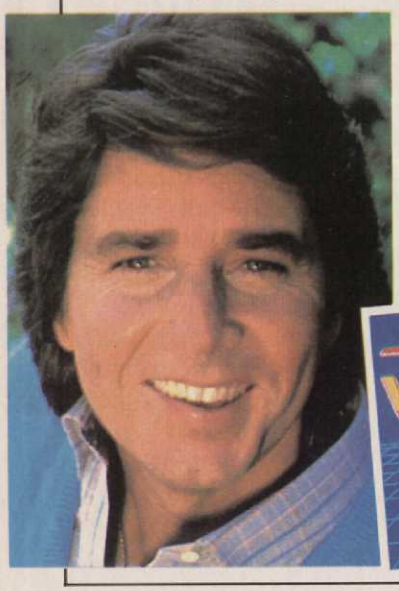
In each box of cereal you'll find a "Magic Motion Poster and Screen" which, if you're lucky, will have the name of one of the games printed on it. You're then eligible to enter a drawing where you'll win the game if picked. A total of 500 of the games are up for grabs. You may also obtain a "poster" by printing your name and address on a 3x5 piece of paper and sending it to: "Halfsies," P.O. Box 7922, Chicago, Illinois, 60680. Send by Nov. 1, 1983.

So if you're one of those people who has to be dragged out of the arcades, a box of Halfsies cereal could have the perfect prize for you. After all, a video game sure beats a super-duper decoder ring any day.

—Michael Fine

That's Entertainment

At long last an exciting, fast-paced and informative video game show, *The Video Game Challenge* by Viacom Enterprises. Hosted by recording artist and television personality, Bobby Sherman, the news magazine format covers a wide variety of topics during the half hour show. Segments include a competition between the top two players of a popular arcade game, tips on how to improve game scores, different computer products, reviews and previews of games and, of course, a countdown of the top ten home and arcade games.



At the start of the show the competition between the top two players begins. Their match is then focused on periodically as the announcer explains the different aspects of particular strategy might be used. When both players have finished, the one with the highest scores is awarded the actual coin-op machine played.

Another part of the show is devoted to supplying play tips via short clues given by players, on the spot, in different arcades. Besides these helpful strategies, *The Video Game Challenge* also brings to television up-to-the-minute reviews of the latest computer and video game products and accessories — a sort of mini-roundup of everything happening in the world of video.

And what a better way to tie a video show together than with a countdown of the top ten home and arcade games? The best coin-op machines and home carts, as tabulated by *Play Meter* Magazine and *Billboard* (yes, the same folks found on *Video Games* own "Stats"), are listed along with visual displays, which is a nice touch.

Emmy-winner Ward Sylvester, who has produced more than 600 television programs, is one of the masterminds behind this new series. His credits include TV series, movies and variety specials for ABC, CBS and NBC. This syndicated series is expected to have a September, 1983 debut so check your local listings.

As Robert L. Glaser, President of Viacom Enterprises, feels, "*The Video Game Challenge* brings to television the excitement and fascination of the ten billion dollar video game explosion with a format and a star that are sure to attract the young, hard-to-reach viewer. Video games are heralds of a new era, so it's appropriate that space age technology is being used to both preview and distribute this futuristic series."

We couldn't agree more.

—Melinda Glass

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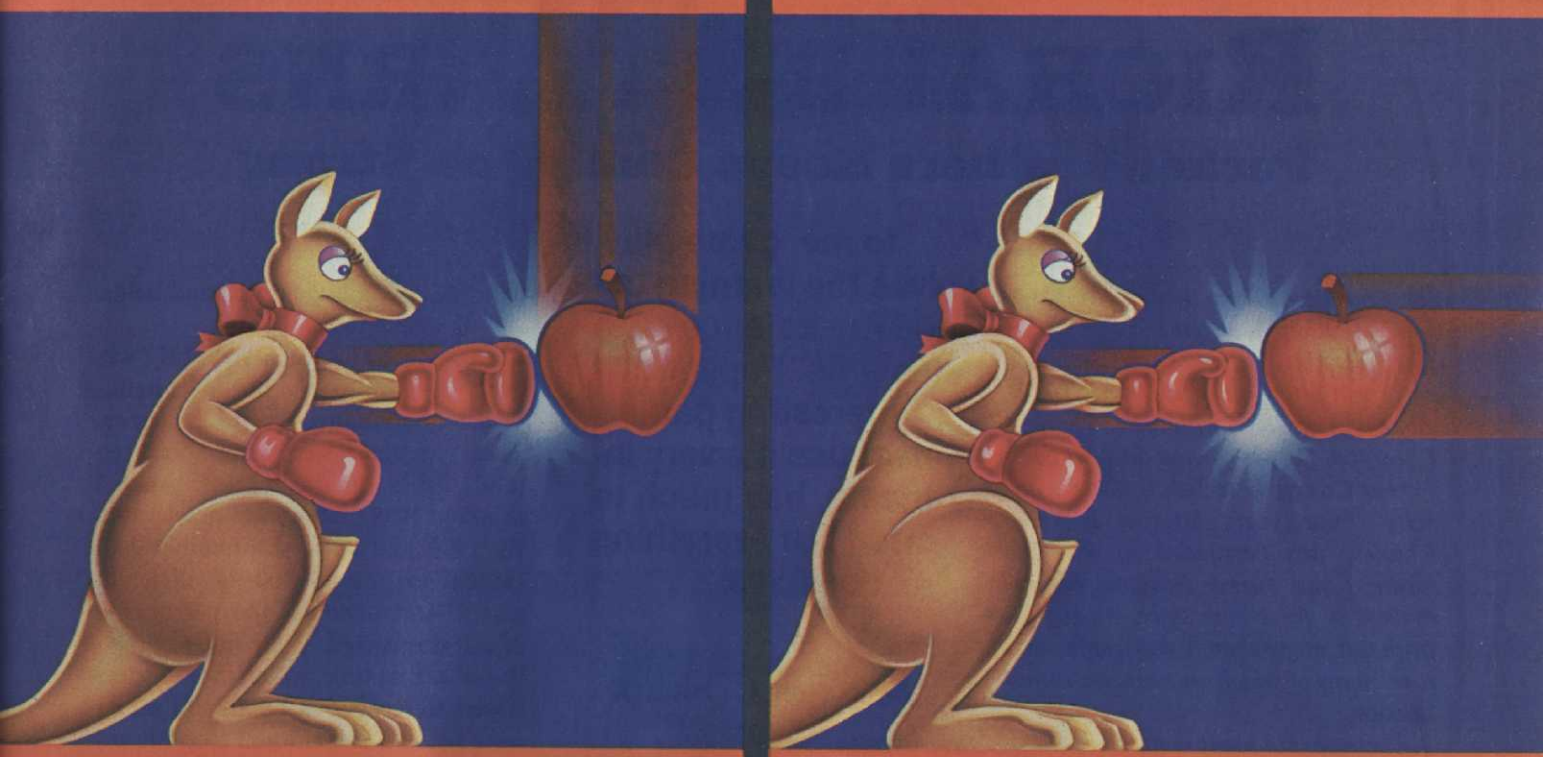


Which player is about to hit the jackpot?

Think quick. This two-fisted Kangaroo is a ringer for the one in the arcade. So don't pull your punches. Like the player on the right. He'll only score 100 points for punching a thrown apple. But the player on the left will score twice as many for punching a falling apple.

Only Atari makes Kangaroo for the ATARI® 2600™ Game, Sears Video Arcade† systems, and a version exclusively for the ATARI 5200™ SuperSystem.

So get Kangaroo. It's a knockout.

Here comes Kangaroo* from Atari.®

A Warner Communications Company

RICHARD STEARNS

Parker Brothers Keeps Coming on Strong

". . . to me, game play involves the learning curve and the balance of the elements. Popeye is an interesting game because it's very intricate, has much to offer, but everything dovetails. . ."

By Roger C. Sharpe

It has been a long time since George S. Parker invented a game called "Banking." The sixteen year old spent $40 to make up 500 sets of the game and, in 1883, with the $100 profit he earned, Parker created the George S. Parker Company in Salem, Massachusetts. Four years later a brother, Charles, was persuaded to join the business and Parker Brothers has remained a force ever since, having introduced more than 1,400 games and toys, many of which are now considered classics.

There are not many companies which have enjoyed such a rich history in developing home entertainment products who have been able to make the transition into new technologies. But Parker Brothers, although entering late into the video game boom, has had remarkable success in parlaying licenses with such properties as Star Wars and relationships with some of the major coin-op manufacturers.

The results have brought Parker Brothers earnings of more than $100 million over a recent nine-month period and the future looks just as promising as the company gears up for the release of video game titles in multiple formats. Vice President of consumer electronics at Parker Brothers, Richard Stearns has a vision that will, hopefully, keep the company on the cutting edge of game design and creativity.

A native of Syracuse, New York, Stearns is one of the new breed who have begun filling the ranks of home video and computer game companies. He received an MBA from the University of Pennsylvania and in 1975 joined Gillette to begin a career in marketing and sales. However, something was missing and, after two years, Stearns spotted a small advertisement in the trade weekly, Advertising Age, *that Parker Brothers was looking for an assistant products manager.*

At that time, the company was just introducing its first electronic game, Code Name Sector. A new industry was still in an embryonic stage and Stearns entered a world unlike any other he had experienced before. Having been intrigued by video games from his college days, Stearns knew that Parker Brothers was a place where the future could be made in terms of innovative directions in product development.

*Together, Stearns and Parker Brothers are ready to hit the home market with some strong arcade titles, including Q*bert and Popeye, as well as movie tie-ins such as a James Bond, agent 007 game and more in the continuing saga of Star Wars. Add to this that Parker is embarking on a noble experiment of issuing games for all the major systems, simultaneously, and it's a bit easier to understand why Parker Brothers keeps coming on strong.*

VIDEO GAMES: Parker Brothers has been around for a long period of time, way before video games. But the company did, initially, get into hand-helds. Tell us about that.

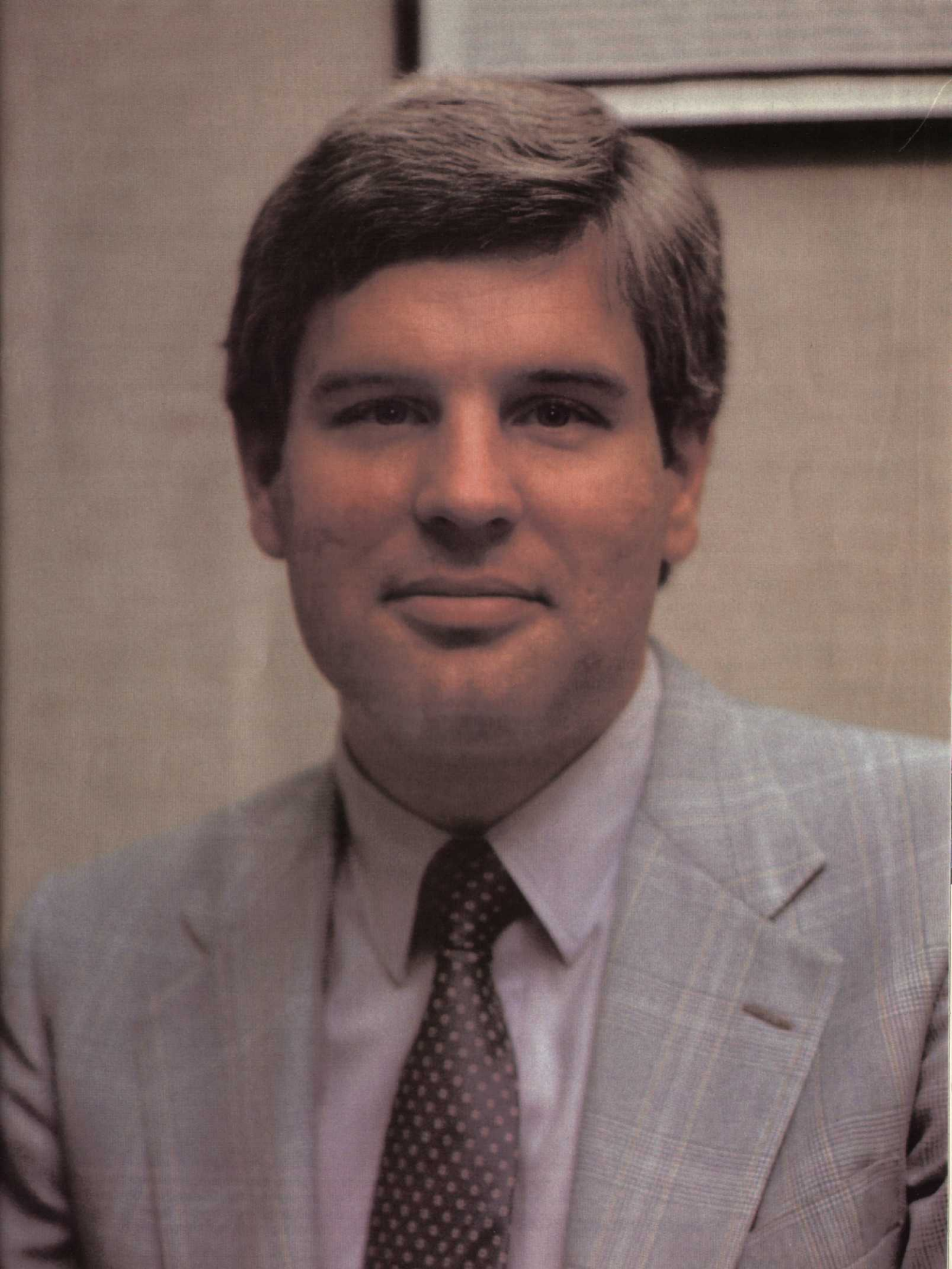
RICHARD STEARNS: Well, 1977 was really the birth of the portable, hand-held, self-contained electronic games. That year there were only about ten total games on the market. And, I think, in 1978 that grew to maybe 100. By 1979 and 1980 the number had swelled to around 400-500 different games. And, of course, the market kind of self-destructed. What nobody really saw at that time, which in retrospect is easy to see, is that hand-held games were really a transitional step toward video games. If you think about it, a hand-held game is really just a video game with a weak display. It's portable and features a poor display technology. If there is to be any future impact in this area what we'll need is a breakthrough by which we will be able to put a television screen in hand-held games. Then they'll truly be portable *video* games.

VG: But what happened with Parker and its efforts, since the company did have some good product in this area?

RS: Well, you couldn't stand out in that environment. It was so glutted with products that the good ones couldn't always get the attention they deserved. And I lament to this day, sitting around with the old-timers, saying that it was a shame Bank Shot, Split Second and Wild Fire didn't make it. They really were classics. In fact, about a month ago I told my secretary to get a hold of one of each of those for me, because I want to save them. Someday they're going to be neat things to show my grandchildren. Had they come out a year earlier, things might have been different.

VG: I remember playing a number of

Photos by Joe Henefield



other games, which were really exceptional, but seemed to pass before they ever came. How did Parker Brothers view this point in the video evolution?

RS: Parker Bros. was really, I think it's fair to say, in a regrouping mode. We were scratching our head. We'd missed video. In 1980, the big news was that Atari is alive and well. And television is surging. And that was what saved Mattel from the disaster. As the hand-helds were going down, television was going up. And we were pretty disoriented. We had missed the video thing because we were so preoccupied with hand-helds. We thought hand-helds were forever and they weren't. As a result, Activision slipped into video before we did. They were on time and we were at least a year late. Anyway in the summer of 1981, the General Mills toy group head in New York called a meeting, which, for all intents and purposes was our beginning in seriously defining just what the future of video might be. And at the time it was one of those fortunate personal strokes of luck. My boss was on vacation, and I went to meet with the bigwigs from General Mills and the president of Parker Brothers.

There was a great deal of discussion which took place and suddenly it came to me. I had prepared a presentation and stood up. Now the prevailing mood was the recommendation by the other people attending that we get a hardware system going. This was in 1981, two years ago. So I stood up and said, 'alright, you know, with all due respect to the chairman, I think that's the craziest idea in the world to get a hardware system going because you're facing technological obsolescence. It's going to take us a year and a half from now to develop and launch it. By the time we do, somebody else is going to be out with something more sophisticated.' Our expertise is in creativity and game play, the proprietary kinds of products that we can market and build franchises in. And they are not just commodities.

VG: I'm surprised when you just recounted that story that they would have thought even then in 1981, to come out with a hardware number.

RS: Well, Coleco hadn't been heard from yet.

VG: I know, but everyone was already waiting for the next step ahead. And computers were already gaining some inroads.

RS: Well, fortunately, at the time, we went away from a hardware system. And my recommendation was that we go to our own backyard and take advantage of the Star Wars franchise from Kenner.

We had signed this fortuitous contract in 1976, which gave us worldwide rights to Star Wars forever. And I said, that is a video game franchise we can use as a starting point. And then we can go out into these arcades and license those games for the home. And that was a pretty revolutionary concept back then. Atari had done some of it, but not that much.

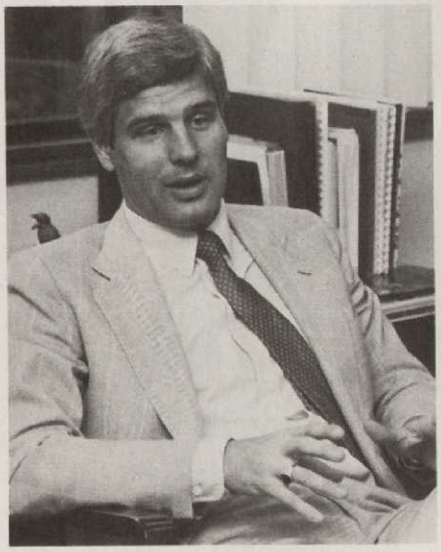
VG: At that stage it was really their own titles. But Parker didn't really get in on the ground floor. What happened?

RS: Well, I came back and within a week or two the president came over to me and said, we're putting you in charge of this whole thing. We're relieving you of all your people and all your responsibilities. You know, you are a man without a country now. We want you to go off with these three other people and start a business in video games.

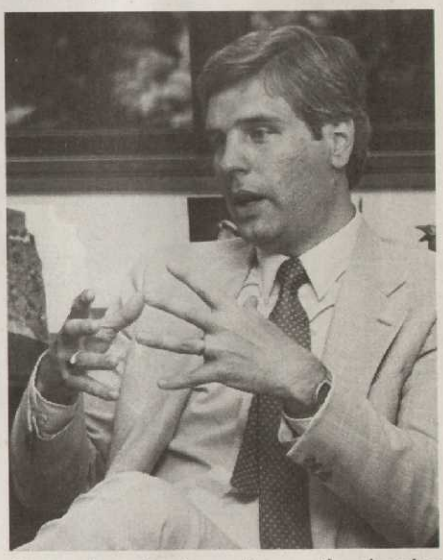
I had very meager objectives at that point which we kept making more and more aggressive, because the market kept happening faster and faster. We had initially planned to be out with our first cartridge in 1983 and thought, maybe, we'd develop four or five more before the year was over. But as time went on, the Star Wars game got going and we thought we could make early 1982, or the middle of the year. We finally made it to Toy Fair in the beginning of '82 but while all this was happening one of the first things I did was ask for two dozen copies of the coin-op industry publications from the previous two years. I didn't know what they were, but knew I had to have them. And I received *RePlay* and *Play Meter*, and read through about 40 magazines one night and wrote down all the company names, addresses, phone numbers and game names.

And the next day I started to pick up the phone. Hello, Bally/Midway? Can I talk to the president? I just kept knocking on doors and I got into Sega,

". . . we'll hire you if we think you have the potential to be a good designer and a programmer. . . "



". . . we're dealing with a fundamentally new entertainment medium that's at the level of television in the '40s and movies in the '20s. . . "



". . . as the technology advances there's going to be many more creative kinds of things that will be done on a video screen. . . "

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If you move fast you'll earn extra lives. But if you're not careful, it's a long way down.

So jump to it. And find out why Jumpman and Jumpman Jr. are on a level all their own.

One to four players; 8 speeds; joystick control. Jumpman has 30 screens. Jumpman Jr. has 12 screens.

*1983 C.E.S. award winner.

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". . . I believe this is the final version. It's really quite satisfying in that it captures all the strategy. We've got most of the characters and we've got the green ball and the routine where we change two colors. . . "

Bally/Midway, Williams and others. I didn't call Atari.

VG: Obviously you also called Gottlieb because of Q*bert and Reactor. How did that come about?

RS: That's a funny story. I sat here doing my phone calls and the only company in this industry which seemed to be an anomaly was Gottlieb, an old-time pinball company. And they've done virtually nothing in video. Why is that?

And I thought, they're probably in the same boat we are. They missed it. So I called up Gottlieb and talked to Marshall Caras, introduced myself, and told him, I was just sitting there thinking that you're probably in the same boat we are at Parker Brothers. And I explained it. His response was that I was absolutely right and he stated that it was uncanny that I should call because Gottlieb was just putting together an organization to get into video games, and meetings soon followed.

VG: That was a risk back at that period of time because Coleco and Atari were grabbing almost everything in sight, especially Coleco.

RS: I like to tell the story that we missed Donkey Kong by about an hour in a Japanese factory. Arnold Greenberg was there before us and Ranny Barton, our president, was planning a trip to Japan and we figured we'd better get to know this Japanese marketplace. We had no connections there, didn't speak the language, and didn't know anything about Japanese business. And yet, we somehow felt that we had to plant a flag over there. So he went over and made a bid on Donkey Kong at the JAA Show. It was the biggest bid that Parker Brothers had ever made on any property of any kind. It was something like $150,000 with royalty guarantees and they were shaking to make that offer. But Coleco got it for about $200,000 to $250,000. And it was worth millions in terms of what you could have paid for it if you realized what it was worth. So we lost Donkey Kong in kind of the eleventh hour. We got Frogger almost out of desperation. We called Sega, but they said they were sorry and that it looked like they were going to award Frogger to somebody else. And I asked Dave Rosen if there were anything I could do. And he said, well, not really. We've pretty much made the decision.

So I hung up the telephone and went into Barton's office and I said, we lost Frogger. He said, 'what can we do?' I said, I don't know. He said that it's pretty much gone. And at that time Frogger was nothing. It was kind of a mediocre arcade game, and, Barton said, we've got to get something. So we called up David Rosen and almost heard his chin hit the table when we made our offer. He said, 'I'll call you back. I'm going to reassemble the board of directors.' And that night he called me at home and he said, you've got it. He said, I've been working all night, pulling the strings, and you've got it. So there we were with Star Wars and Frogger, which we introduced in February at the Toy Fair. Then we started to accumulate Reactor, Strawberry Shortcake, Super Cobra and some of the other products that ended up in our stable. And, you know, in retrospect, right now in the coin-op industry there are only three companies in the bidding for arcade titles. There's Atari, Coleco and Parker. We have been tenacious. Ranny Barton has been to Japan since that trip 10 times. I mean, he's on a first name basis with virtually every Japanese person associated with the arcade business. I've been there three or four times. We've been to the European arcade shows, and all over the United States conventions.

VG: How important is having an arcade name and are you satisfied in retrospect with Empire? Obviously the sales were good and it was a nice, simplistic game but what do you think of it?

RS: Well, Empire was our first effort. And it was not intended to be a knock-off of Defender. It was developed around the same time, but it was the first game that did that type of screen scrolling on the VCS, and of course, we had never programmed a VCS game at all.

The original design of the game had about 50 percent more features in it. We had envisioned this wild thing with cave entrances. You could fly underground, pick up weapons and come back. And, of course, in the last ten days we had to take all of those plans out and streamline the game, which was agony. It was like cutting off your child's legs.

VG: One problem I saw was that you could knock off a walker with 46 shots, or whatever, and then suddenly there was another one.

RS: Yes. Well, it was almost too relentless. In fact, it was a horizontal Space Invaders to some extent.

VG: It would have been nice if you had added a second screen.

RS: At the time we just couldn't get it in and we didn't know about 8K then. We knew that at the time there was a market that would buy almost anything. And we did very well with it.

Spectravideo's new Quickshot™ III gives you a better handle on Coleco™ Games

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- *Built-in suction cups.*

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VG: What do you think of the market now in terms of games? What's necessary for success?

RS: I think right now, we're in a very unforgiving market. It used to be that if you did a few things right, you'd have a success. Now you've got to do *everything* right. You've got to start with a superb game. It can't be second-rate. The graphics have to be superb as well as the game play.

VG: When you say game play, what do you mean?

RS: I guess game play is a many-faceted beauty, but I do separate graphics and game play because you can have beautiful graphics and a lousy game or a great game and lousy graphics. To me, game play involves the learning curve and the balance of the elements. Popeye is an interesting game because it's very intricate, has much to offer, but everything dovetails. The balance is there along with subtleties.

When Popeye is high on the screen he is at his most powerful because he is most insulated from Brutus. He's got the most flexibility because he can still go down three levels and come back up. He scores the most points because the hearts are worth more up there.

When he goes down into the hole, he's very vulnerable, because Brutus is somewhere on top of him and it's very difficult to get away. So you've got a powerful top of the screen and a vulnerable bottom. And you've got the dichotomy of the strong and invincible Brutus against Popeye, the small and vulnerable one, with spinach the ingredient for turning the tables. It's what we call the fight/flight reaction.

As for the balance of the game, this has to do with the speeds of the different elements. Brutus is just the right speed so he's not too powerful. He's not too smart, not too stupid and he's not too slow. And the speeds are just right. The hearts fall at just the right rate. It all ties together. There's a constant pressure on the player which is a positive part of the game.

VG: It's a multi-task game which isn't the case with many recent efforts.

RS: Yes, and when you have a multi-task game it's important that you have the necessary balance. Take Popeye. If Brutus was too strong or too weak the game wouldn't be any fun. So I marvel at Nintendo, because almost more than any other company, they have this attention to detail. Looking back, Empire Strikes Back was too hard. In fact, we made it too hard because we were paranoid that it would be too easy, 10-year-old kids we assumed were so good as players. But what people want is a game they can enjoy right away. And maybe Level 10 is wicked tough.

VG: We've talked about Popeye, but you also have Q*bert coming up. How did you feel about this acquisition?

RS: Q*bert is an elegantly simple game, and one of the things I love about Q*bert—the minute I looked at it, I said, this has got the same qualities that Pac-Man had. It's cute and it's got very one-dimensional play principles that are easy to understand and easy to perceive in terms of what you're supposed to do. And then it's very difficult to do it with any proficiency. And it's the kind of a game that appeals to a broad audience including girls, boys, big kids, adults, everyone.

VG: Well, from what I see here you've gotten better graphics than what you had on Tut.

RS: What we really have in Tut is good game play. You have that blocky maze and on the Atari it pretty much has to be that way. You can't do little bricks, so we did the striations to try to compensate. And then, of course, all the sprites are one color. However, we've got four different screens so that we were able to capture much of the play of the arcade.

VG: How much input do you get from the coin-op companies?

RS: From the licensors?

VG: Yes.

RS: It varies. But not too much.

VG: So, you're really on your own. What about their designers?

RS: They pretty much stay away from it. Most of the coin-op designers aren't very much interested in the home because of the technical limitations. This is not a real playground for them.

VG: Even without the direct intervention do you strive to emulate the games as much as you can?

RS: We do, I think. First of all, we write what is called a product blueprint. So when our software group is asked to program Reactor, they get a product blueprint. And the product blueprint says that the starting point is that we

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want a full emulation of the game. But since we know we aren't going to get it all in there, let us describe for you what we consider to be the important dynamics and elements of the game, and then prioritize them for you. If it's a question of bumping screen two or getting this feature in screen one, give us a better screen one and we'll leave screen two off. Popeye was a good example. We can get rid of screen two altogether and give you one more feature in screen three, and we said we think we'd rather have the variety. So we try to prioritize that. So when the guy starts programming, he says, 'alright. I know what the arcade game is and that's what we're trying to emulate. But I know if I can't get it, there are some trade-offs that we can make.' We try to involve the designer a little bit in the blueprint, and as he gets going he has much more flexibility to come back and say I disagree with your priorities and I'd like to do it this way.

VG: Let's get into that. How is the process at Parker Brothers and how large is the staff we're talking about?

RS: Let me tell you about our philosophy regarding where our products come from and where they're going to come from. We see three sources for product. One is from the arcades as a source of original game design, and we do that by licensing. And we just try to emulate the game as closely as possible. The second source would be outside inventors and small software houses. There are many people out there.

And the third source is our own internal creativity, which is, obviously, very important. I just wrote my corporate objectives for the coming year, and an important one I have is to get Parker Brothers to a point where we have what I would call an excellent game design facility. I don't think we're there yet. And let me now say that we believe in trying a couple of different approaches. There are many ways that you can invent a game. You can send one man, Leonardo da Vinci, into a room with pencil and paper and let him create. Or you can assemble a team of talented people, each with their specialties and have them work together to create a game. And essentially we're trying both.

VG: Do you have updating sessions and general status meetings?

RS: Yes. We have continuous updating sessions, review sessions, and we have a product evaluation committee. And that reflects one approach to game design.

VG: Are your people game designers or game programmers? Are they people who can conceptualize and, say I'd like a game that's going to be like this?

RS: There's about ten. They are designers and programmers, and what we've said is that we'll hire you if we think you have the potential to be a good game designer and a programmer. You've got to have both, and if it turns out that you don't, you're not going to stay in that group because we want to keep that group with our best creative people. And maybe we'll reassign you into more of a translating mode where you translate an arcade game for some system other than the VCS.

"... there are many ways that you can invent a game. You can send one man into a room with pencil and paper and let him create. Or you can assemble a team of talented people and have them work together to create a game..."

VG: So everybody has to have basic programming skills.

RS: Yes, with machine code, first and foremost, and then, who knows about creativity. We try to look for some enthusiasm and kind of a flair, but it's hard to measure this quality in an interview. Then we have the other approach. So that's the engineering one-man Leonardo da Vinci approach that says, you know, I am creator and inventor. We have another approach, an entire department that is called Preliminary Design. And it's the same kind of way that we run out traditional business. This is a bunch of creative people that do a great deal of concept work. And of course in a board game there is really no implementational work except for graphics. And these are people out of all kinds of walks of life. Some of them have been around for 15-20 years in the game business doing various things. And we are in the process of setting up a kind of interdisciplinary approach. In that group you've got a couple of cell groups of designers, maybe ten designers with two groups of five people each. And these are creative teams. They are going to have brainstorming sessions and all the rest.

VG: Internally, will someone come up with a concept that they'll have on a storyboard, or will they go immediately into a detailed description or some movement on the screen and make their presentation?

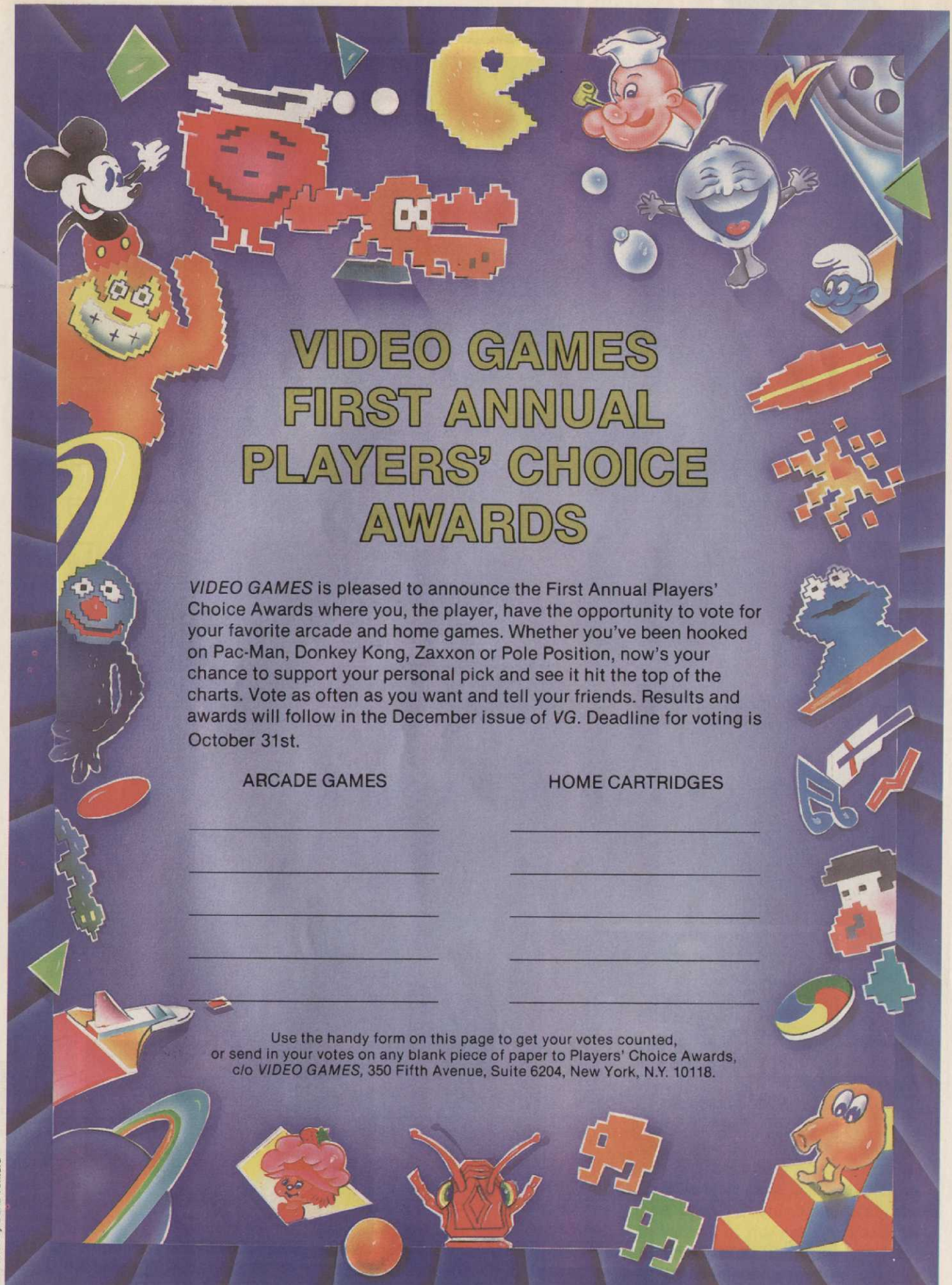
RS: It's usually a storyboard and game description presentation of some kind which will come up before the new product committee, for example. And the guy would say this is my vision for the game. What do you think? And the new product committee might say several things. They might say, that looks very promising. We want you to take it to the next phase, and that would be some screen graphics and some rudimentary demonstrations of the action principles. Or, they might say, sorry, but given market conditions and all the other things we've got on our plate, we don't think that warrants further development. Or it could be a real vote of confidence that the concept looks terrific and we don't have any doubt in our minds. Start immediately and implement it and we'll get it going now in two or three other formats.

I've been mentioning these other formats. I think the greatest challenge right now for manufacturers is to coordinate a simultaneous introduction. Because the day is rapidly ending where you can take an Atari VCS Q*bert and pop it out there and spend $2 million in advertising and make money. The volumes aren't there. So you've got to have Q*bert for the VCS, ColecoVision, the 5200, 400/800, TI and the Commodore, all shipping the same day, so that your sales force can go in and make one sales call, sell six products, get them all into distribution and then you're in the plan and all the economics come together.

VG: Do you think simultaneous releases and dealing with all the systems will be a problem because there is such a glut with personal computers?

RS: Well, we made a broad statement in our long-range planning session to General Mills management, and we said

(Continued on page 81)



VIDEO GAMES FIRST ANNUAL PLAYERS' CHOICE AWARDS

VIDEO GAMES is pleased to announce the First Annual Players' Choice Awards where you, the player, have the opportunity to vote for your favorite arcade and home games. Whether you've been hooked on Pac-Man, Donkey Kong, Zaxxon or Pole Position, now's your chance to support your personal pick and see it hit the top of the charts. Vote as often as you want and tell your friends. Results and awards will follow in the December issue of *VG*. Deadline for voting is October 31st.

ARCADE GAMES	HOME CARTRIDGES
_____	_____
_____	_____
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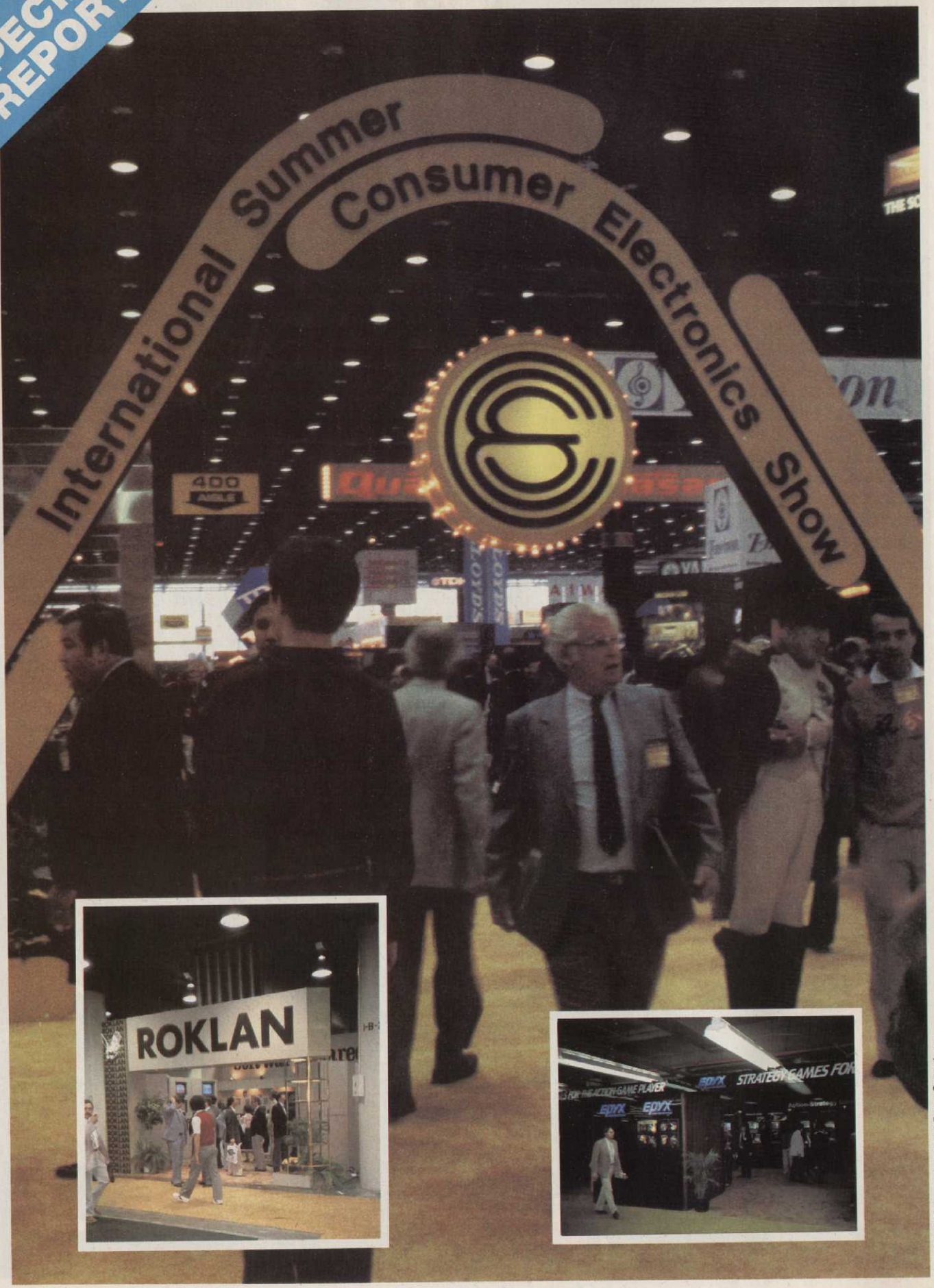
Use the handy form on this page to get your votes counted, or send in your votes on any blank piece of paper to Players' Choice Awards, c/o *VIDEO GAMES*, 350 Fifth Avenue, Suite 6204, New York, N.Y. 10118.

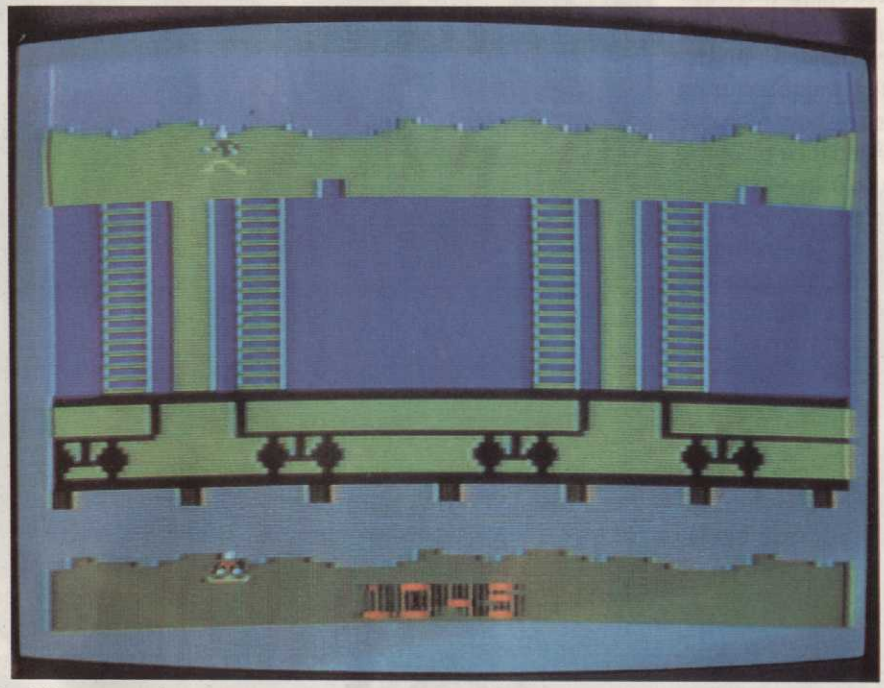
Illustration by Dana Ventura



Photos by Roger Sharpe and Perry Greenberg

For Your Eyes Only

By Anne Krueger

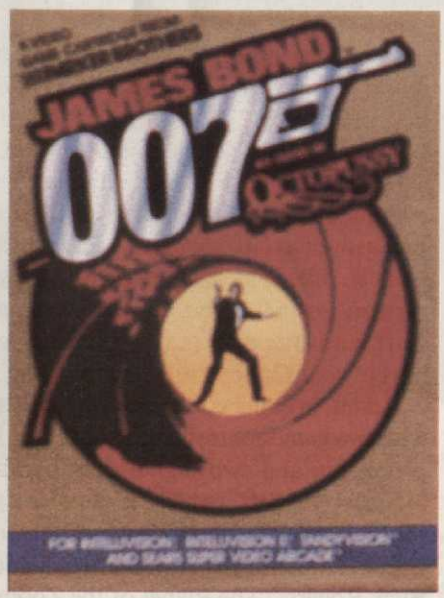


If you're a James Bond fan, you'd love the Consumer Electronics Show. In fact, if you're familiar with any of the Bond flicks, then you already have a fair idea of the pace and activity experienced at the recent CES show in Chicago.

The movie is typical 007 fare. Roger Moore battles enemy after enemy hopping from one continent to another; dabbles with a bevy of beautiful women; and outdoes himself with stunt after stunt. The film—like CES—has its low points but you're barraged with so much to look at, it's guaranteed you won't be bored.

CES, obviously, is longer than even the dullest movie and the location is far less glamorous. But the hectic, razzle-dazzle atmosphere and ambitious attempts to technologically excel are much the same. The twice-annual industry event has become a real video game and computer playland; five days surrounded by hoopla and hype and "major announcements," many of which never come to pass. Each year at this electronics Disneyland, thousands of retailers take an early look at the titles, hardware and other innovations you'll find on store shelves later this year, while video game and computer makers play their own big game of one-upsmanship with each other.

If you could beam yourself for 10 minutes to the three-level McCormick West—the building where most of the video game and computer people were gathered this time—you could see one heck of a lot. Just imagine yourself (and 80,000 others) walking among the exhibits; this is a mere sampling of what your eyes would encounter.



Fresh little robots whiz by demanding a kiss. Scantily-clad females (a la 007's usual harem) sidle over to force magazines, shopping bags, stickers and other interesting propaganda upon you. A child techno-expert, with notebook in hand, may waltz by—trailed by a news camera and his mother.

Chances are you'd see Bruce Jenner, Alan Alda, Chuck Norris, Frankenstein, the awesome Captain Sticky, the skiny Stickettes, Santa Claus, the Pink Panther and Adam (but no Eve). You could be overwhelmed by the gaudy oversize booths and the enticing state-of-the-art games and machines on display. Your feet will hurt. Your arms will ache from lugging the shopping bags of material you've collected. So will your head from the noise, the confusion, the *excitement* of it all.

Everyone will be vying for your attention. So much so that this year it looked like video game and computer makers were in fierce do-or-die competition for the following awards: 1) Most Dramatic Product Introduction, 2) Largest or Best-Dressed Exhibit, 3) Most Hospitable, and 4) Most Enchanting Product Spokesperson or Mascot.

Fear and Loathing in Chicago

Despite the optimistic faces manufacturers put on at these shows, I should interject a serious word about fear and the rise and fall of video games. The show has its share of outrageously tacky, stupid and inferior products and pathetic exhibits with no traffic. For some

manufacturers, CES *is* a true-to-life, do-or-die experience. It's usually gloomy and analyst-types who make a big deal about CES duds and send out overwrought bad vibes about the passing of the video game era.

But any feeling of fear at the show wasn't based on the belief that video games as a pastime were on the fast track out. Rather, it was a legitimate fear among certain over-extended, underfunded or misdirected manufacturing participants that, due to show response (or the lack of it), they and their products weren't going to make it in this tough marketplace or to the next show. Some of these people will go the route of Games By Apollo, Astrocade, or, more recently, U.S. Games and Data Age.

It's even safe (but not nice) to say that saturation and obsolesence probably *do* loom in the dedicated video game future. But it's a long way off and, rest assured, video game software and hardware makers aren't giving up ship. Instead, the CES was a showcase for the huge amount of healthy diversification going on in the industry.

For instance, software makers—Imagic, Activision, Fox, Tiger, Telesys, Parker Brothers, the list goes on—are jumping on the growing computer bandwagon with new computer games as well as strong video game offerings. Broderbund and Avalon Hill, companies that previously specialized only in computer software, made the downward technological jump to offer VCS versions of their games—a move which verifies the staying power and expected continued growth of the installed dedicated video game base and futher blurs the line between video game and computer markets.

N.A.P. Consumer Electronics Corp. and Atari each announced they've set up new software operations to produce cartridges for rival game and computer hardware. (Coleco and Mattel, as you probably know, have been taking this tack for some time.) Atari plans to adapt some of its existing titles for the Apple II, Radio Shack Color Computer, Commodore 64 and VIC-20, IBM PC and TI 99/4A. N.A.P. will continue to produce software for its own Odyssey system but you'll also start seeing Odyssey products for your Atari VCS, 5200 and ColecoVision.

Gathered around to watch Androbots on parade.

In addition, hardware manufacturers introduced all sorts of gadgets to turn their dedicated video game machines into more sophisticated computers. It wasn't the death of video games that was seen at CES, but the merging and evolution of a new market.

And the Most Dramatic Award Goes To

Coleco is among those companies making it in a big way and doing the upgrade-a-go-go. It wins the Most Dramatic Award for its unveiling of the $600 Adam. The sleek white standalone computer system includes a keyboard unit as well as a daisy wheel printer and what's called a data pack memory system. For $400 you get all the same stuff but it fits right into the expansion port of your ColecoVision game system.

Adam, in either configuration, comes with two game controllers, built-in word processing and two digital data packs —Smart BASIC (which is Applesoft source code compatible) and Super Game Pack which contains the great Buck Rogers—The Planet of the Zoom game.

Coleco's exhibit was packed with people who wanted to take a closer look at the system slated to deliver this fall; unfortunately, the company didn't seem to have a full working model to show.

This intro and Mattel's showing of the Aquarius computer system at the last show signifies the onset of the "package deal." Savvy marketers are realizing many first-computer customers like to do an easy upgrade or get all the peripherals in one shot.

Coleco's new system also is a sign of other things to come: Computers on a first-name basis. Apple has its Lisa; Coleco now has Adam. Which brings us to Fred. He's a computer peripheral created by a company called Androbot which was created by a famous guy named Nolan Bushnell who one day, long ago, created Pong and Atari. Bushnell also showed TOPO and B.O.B. (Brains on Board)—two robots who will one day help you vacuum, fetch all sorts of things and probably teach you the latest complex dance steps. Fred, though, is a tabletop robotic device that needs a computer and special software to tell it what to do.

Let Me Entertain You

You probably know by now that CES is a trade-only show; no regular consumer types get to attend. It's a shame because video game and computer companies really outdo themselves on the booth design and party scene. Winning the Most Hospitable title for its super Decathlon party is good old Activision. As vice president of marketing Frank Mainero puts it: "You know we can be counted on to give *great* parties." Frank is so right.

After you remember not to forget what to remember, you can't forget to remember what you remembered not to forget.

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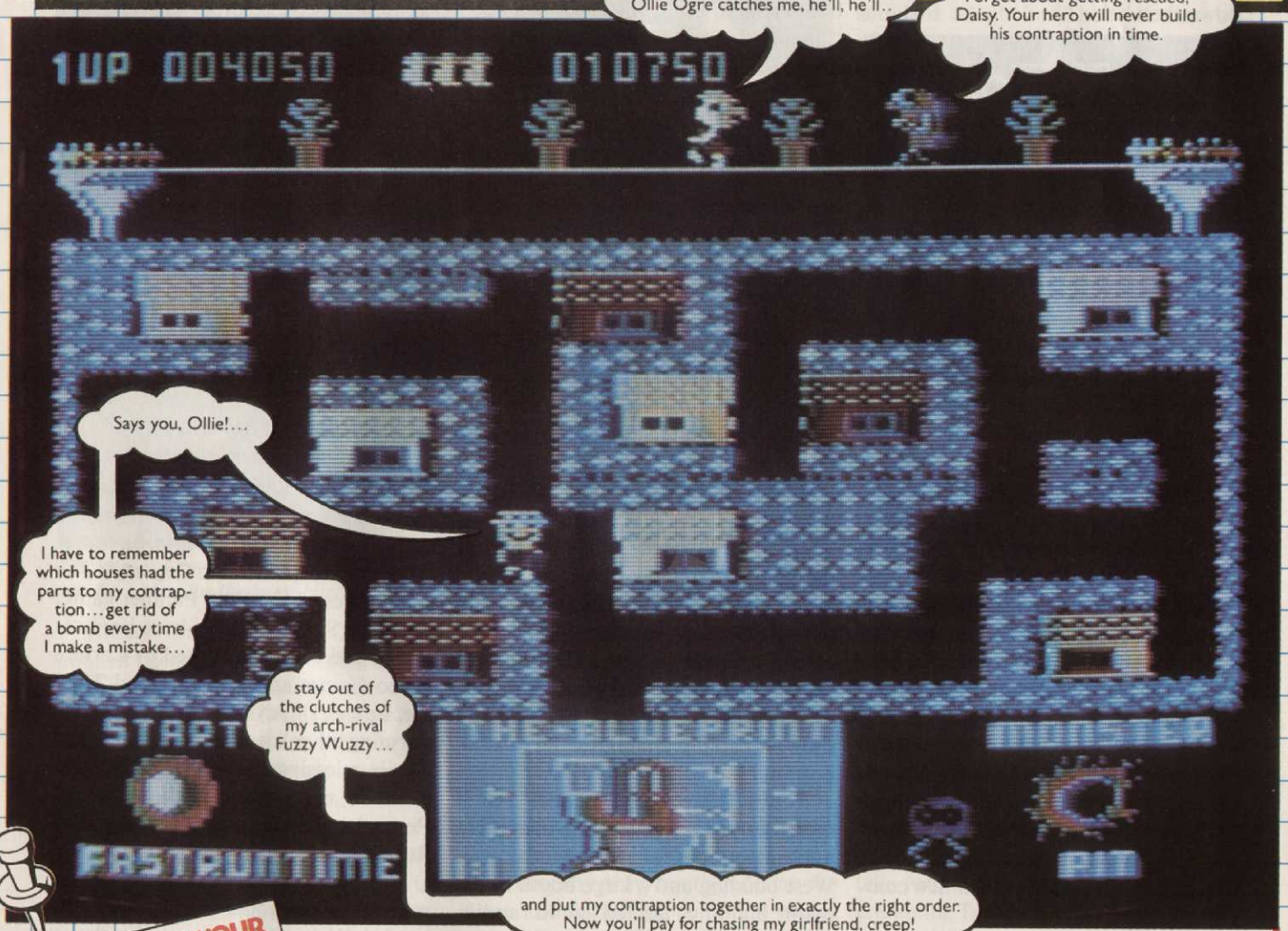

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5. Offer limited to one $5.00 rebate for each cartridge purchased up to $20.00 and limited to one $20.00 rebate per household, address, or organization.
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Limit one $5.00 rebate for each cartridge purchased up to $20.00. This certificate must be accompanied by your *cash register receipt and the UPC symbol* found on the back of the cartridge box. This offer expires Oct. 15, 1983. All requests must be received by Nov. 1, 1983.

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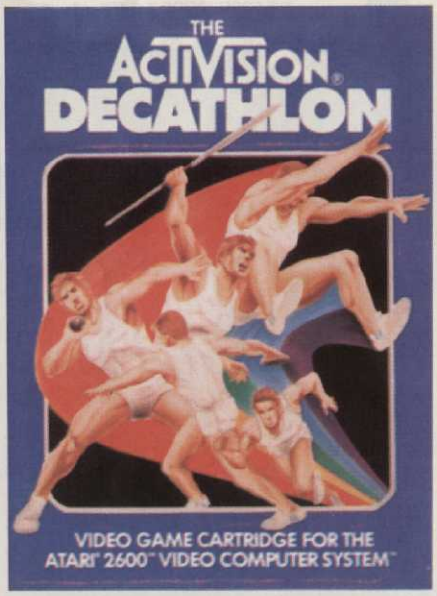
While the company's new Decathlon title is a neat game where players must perform in several sports arenas, the party was a test of stomach, brain cell and dance floor endurance. Had you been one of the 3,000 black-and-blue people who attended the party, you would know what I mean. A lot of manufacturers are generous with food, fun and drink at various show fetes and it's especially entertaining to watch company presidents and game designers let down their hair.



One of Activision's newest entries.

It's also fun, when you're not trying out all the new games and equipment, to watch for celebs. Bruce Jenner was conspicuously hanging around the Activision booth promoting the company and the Decathlon cart. Jenner, asplendor in brief shorts and sporting a big expanse of tanned everything, might have been my pick for Most Enchanting Spokesperson—but that was before Atari announced Alan Alda as their new computer mascot.

This is quite a coup since Alda never endorses anything (not even the M*A*S*H game). But, he claims he loves Atari and Atari computers and, well, everyone loves Alan Alda. He had the press eating out of his hand at a sugary press conference and will be equally successful as Atari's Mr. Nice Guy celeb, I bet. He has a five-year contract with Atari, but the company wasn't giving specifics on Alda's function other than saying they had him. That seemed to be quite enough.

Another notable, Chuck Norris, could be seen at the Xonox booth. Xonox, a name you might not recognize yet, is the maker of VCS software and showed a Double Ender cartridge featuring Spike's Peak on one end of the cart and Ghost Manor on the other. This is what doubling your video game pleasure is all about. Look for the duos on store shelves this fall.

Those who stopped by the Datamost booth couldn't miss the larger-than-life Captain Sticky. He and the barely-dressed female Stickettes also could be seen driving around the Chicago area in an army tank although I'm not sure why. The Datamost exhibit also seemed to consist of several tents; again, I'm not sure why. I only know it doesn't receive my award for Best Dressed Booth, although the Captain was pretty well dressed and almost as big as some booths.

Now when the Fox booth was turned into a mess hall tent at the CES in Las Vegas—that I understood. This time around the company was pushing it's infamous Porky's game based on the infamous movies of that name so the booth, I think, was supposed to be a bar. There was a moose head on the wall and the game is supposedly aimed at the same audience that flocked to the movies in large numbers. Since you couldn't pay me to attend that film, I'll reserve judgment on the game. It was attracting a good amount of interest at the show, especially among the large male portion of attendees.

It was Atari's two booths that I thought were the snazziest: A software publishing booth in the McCormick West building and a large booth in the main building nestled amid audio, video, telecommunication and other electronics offerings. Mattel and Odyssey also chose to exhibit in the larger building.

Most of the video game companies have real high-tech booths, loads and loads of monitors for game play, and lots of people to help you. Atari's had all that plus style. The company made several product announcements at the show including the intro of a cache of new sports games and a home version of the popular Joust arcade game. Atari also is revamping its home computer lines; with four new models. In the package upgrade arena, Atari re-showed The Graduate, which is the $90 add-on that upgrades the VCS.

On the store shelves this October with the 16K ROM computer module with typewriter-style keyboard, 8K RAM, microprocessor and power adaptor also will be an additional data storage device ($79.95). a 40-column thermal printer ($99.95) cassette recorder ($49.95) and 16K RAM expansion memory module ($69.95).

Tucked back into another corner, Mattel touted a new "SuperGraphics" cartridge programming technique that does an upgrade number on the already-good Intellivision graphics. The company said the new technique brings added realism, clarity and action to its video games. Look for games sporting multiple play screens, animated title screens, scrolling play features and more colors in upcoming Intellivision carts.

More and More Licensing

The Pink Panther was the star at Odyssey's booth. Picked up from the defunct U.S. Games, the colorful critter is the leading character in Odyssey's The Adventures of the Pink Panther game. (Other U.S. Games titles have been acquired and will be marketed by Carrere Video Games and Software and Tiger Electronics.) Odyssey is aggressively pursuing other licensing agreements and also is releasing a Power Lords video game in conjunction with a line of Power Lords action toys being made by Revell.

Also on the licensing front: If you were lucky you could have spotted red-headed Walter Williams at the show. He's the creator of *Saturday Night Live*'s Mr. Bill and had licensed the character to Data Age for home game use. With the demise of that company, the Mr. Bill license has come back to Williams who spent a day at the show feeling out other software prospects. You'll be seeing the arcade version of Mr. Bill's Neighborhood before Christmas. Universal is making it, Williams said.

The Romox Programming Terminal allows video/computer game enthusiasts to trade in present games for the latest hits, with each terminal capable of storing 500 different titles.

Mickey in the Great Outdoors, another license, is a new learning adventure produced for Atari home computers and shown by Walt Disney Personal Computer Software. Mickey is one of nearly 50 software programs Disney is introducing this year.

Also starring in a new computer game is the comic-strip Wizard of Id. He graces an educational game called Wiztype which was introduced at the CES by Sydney Development Corp. of Vancouver. Quest For Tires is another game based on a Johnny Hart comic strip called BC. And for Marvel Comic Book lovers, First Star Sofware showed a number of entertainment and education programs based on the famous comic characters.

All you Jedi masters out there better look out. Two more Return of the Jedi video games are being introduced by Parker Brothers. Deathstar Battle released this summer for the Atari VCS and Ewok Adventure will complete the Star Wars quartet and hit the scene this fall. Also in the space mode is a new Sega Star Trek game, based on their successful arcade entry.

The most entertaining batch of computer games I saw on display was from a new company called Electronic Arts. The company is trying to redefine the shape and format of computer games and has designed some very snazzy packaging for its new offerings. Slim 45-record-type covers with dizzy graphics, and even dizzier liner notes inside, house the game disks.

The best game, I thought, was Mule, playable on Atari computers and kicked off with a really out-of-sight disco-beat tune. The company also showed a spiced-up version of the game Surround called Orchon and a game allowing users to put together (and then play on) their own pinball machine. Although I didn't get a chance to participate in extensive game play at the Electronics Arts booth, the game packaging and graphics alone are real grabbers.

Also especially interesting were the GameLine and Romox exhibits. The GameLine videotex module from Control Video Corp. is an interesting $59.95 device that plugs into your Atari VCS and has a built-in modem so that games may be downloaded directly from a standard telephone. The units can be billed to you by time span via credit card. (Don't get too excited about this—your parents can assign you an ID code to enter that will tell the people down at GameLine headquarters how much you can spend each day/week/month etc. on games.) So far Imagic, U.S. Games, Telesys, Data Age, Games By Apollo and several others will be available via the setup. You'll only get to play brand-new games a few times because manufacturers are still hoping you'll run down to the store and shell out the purchase price for the recent releases.

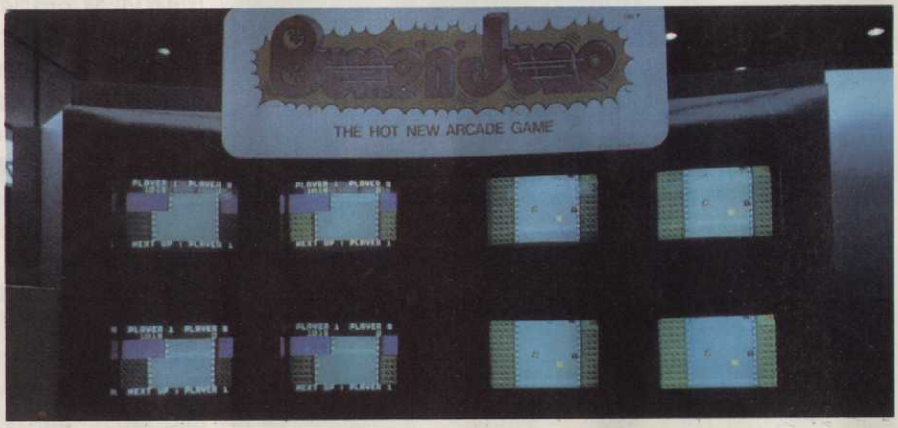
Romox is something all together different, producing programmable cartridges, believe it or not. Starting in September the company says it will be able to electronically send hundreds of software titles to Romox Programming Terminals at retail locations nationwide. The terminals accept what the company calls ECPC—Edge Connector Programmable Cartridges. Right now only Romox games—for the Atari VCS, Atari home computers, Commodore 64 and VIC-20 and the TI 99/4A—are programmable but the company plans to get others involved as quickly as possible.

What this means is that you could take your Romox game in, use the Programming Terminal, and go away with a brand new game—either a Romox title or several others the company hopes to offer. The games will be priced between 99 cents and $20 and blank carts will be available for those who don't want to erase what they have.

The Romox introduction of the programming terminals stirred up quite a bit of attention at the show and industry watchers are waiting to see what software companies will participate with both GameLine and Romox.

Developments Forge Ahead

By Suzan D. Prince



Photos by Roger Sharpe and Perry Greenberg

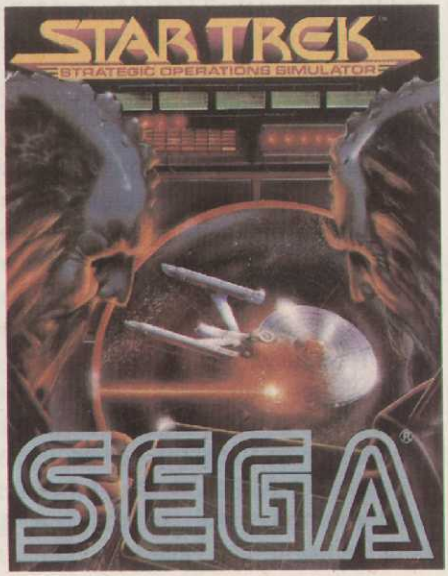
The $20 billion a year consumer electronics industry revolves around two huge and spectacular annual conventions: a January show in Las Vegas and a June show in Chicago. While both events are run much like circus carnivals and each show attracts more than 70,000 retail buyers and other members of the trade, the winter show is traditionally used by some 600 exhibitors to reinforce existing product lines.

At the same time a preview of new products is exhibited and more often than not arrive on the convention floor as mocked-up black boxes; in reality they often exist only on the company drawing boards. If, after enthusiastic sales presentations, a new concept receives proper kudos from scrutinizing dealers in the way of preliminary orders, then the idea may reappear at the summer show, this time looking and operating a great deal more like a finished product.

The June show is for the frenzied trading. It's a let's-get-down-to-business, hard-core, buy-sell atmosphere that prepares suppliers and their stores for the heavy pre-Christmas push that drives the entire industry. There are exceptions, of course, but if a major manufacturer fails to strut its new baby in Chicago, there's a very good chance you, the consumer, won't ever see it.

Particularly in the fast-moving video games business, such evolutionary scenarios have been dramatically unfolding over the past nine months. To get a short-term idea of what lies ahead, then, it's just as important to consider which machines have fallen through the cracks between winter and summer, as it is to look at surviving game systems.

In January, and again at February's American Toy Fair in New York, Mattel Electronics executives hurried selected retailers off to high-security hospitality suites to bestow a privileged peek at Intellivision III, a supposedly souped up



end-all, be-all game system slated for Christmas delivery. The ultra unit was to have contained an advanced graphics chip which would allow more moving items on the screen; a cordless, remote-control joystick/keypad; voice synthesis, three-channel sound and a stereo output feature to play sound effects through a home stereo system.

"It has always been the goal of Mattel to provide the most sophisticated home video game system possible," Peter Pirner, senior vice president of marketing, said at the time. "With Intellivision III, we believe we have achieved the state of the art in video game technology."

By show time in June, Intellivision III was nowhere to be seen. According to a spokesperson for the company, Mattel decided to follow the hardware crowd to

computerization, concentrating on its new Aquarius home computer, while still maintaining a "strong presence" in video game software, and hardware in the form of Intellivision II.

What appears to remain of the model III, however, is the advanced graphics chip. During the show in Chicago, Mattel displayed several new Intellivision cartridges (including BurgerTime, Masters of the Universe, Mystic Castle, Thin Ice and Buzz Bombers) containing a properietary graphics development system, the GDS-7809, or simply, "SuperGraphics". The chip features high-resolution definition and moving objects in varied colors, multiple

A host of screen gems on view at Odyssey.

screens, animated titles and scrolling play-fields.

Odyssey, also, left its January-ballyhooed Odyssey³ Command Center home from the summer convention, and made no bones about it. Announcing the decision on opening day, Jerry Michaelson, vice president of marketing, told showgoers, "We're putting the system on hold for the time being. Our big news right now is that Odyssey intends to become a major force in video game software."

At least one significant planned title is Adventures of the Pink Panther for Odyssey², Atari VCS, and ColecoVision, licensed after U.S. Games, the original holder, folded. As for the premature demise of the Command Center, which was to have contained a full-fledged typewriter keyboard, improved graphics and home computer functions, one industry observer noted, "Obviously, they felt it wouldn't hold its own against the low-priced home computers or game systems with graphics like ColecoVision."

Technology, rather than direct competition, turned out to be the limiting factor at the video games portion of Coleco's booth, where a prototype of the new Adam computer had dealers packed into every square inch of space. The Adam, by the way, wasn't previewed in January, mainly because major design elements were unfinished and also because Coleco hoped to steal thunder—and succeeded—from competitors (Texas Instruments, located right next door, literally hid its new 99/4A step-up, the 99/8, which had been touted in January, after TI executives glimpsed the Adam.) Significantly absent from Coleco's game lineup, meanwhile, was the ColecoVision SuperGame Module (module #3), first announced at Winter CES and then displayed in prototype at the New York Toy Fair.

But by June, Coleco had scrapped the microwafer in favor of so-called digital data packs, magnetic tape-based cartridges capable of storing up to 500K bytes of memory—over twice the capacity of the microwafer. "Technology has changed so rapidly in a matter of months that we have achieved a much better performance ratio with the digital data pack, and we will therefore opt for that device," Greenberg explained. Thus, the SuperGame hasn't disappeared; it's just being refined. SuperGame software (Buck Rogers of the Planet Zoom) will in fact be included with the Adam when it ships.

Only the six-year-old Atari Video Computer System—a true antique in

every technological sense of the word—has consistently survived unchanged season after season, show after show. With some 15 million units in place nationally compared to a relatively miniscule few million Intellivisions, Odyssey²s and ColecoVisions (the latter's owner population recently reached just over one million), the VCS-compatible business marches comfortably on, as last June's CES plainly demonstrated.

Besides the spate of software publishers beating a technology-improvement path to the VCS door, including CBS Electronics with its triple-capacity chip and Starpath, with its repackaged, lower-priced SuperCharger unit ($44.95), accessories makers such as TG Products, Kraft Systems, Wico, and others each introduced add-ons to overcome the old machine's most obvious shortcomings.

TG Products, for example, showed

TG Product's contour designed Enjoystick.

TG Products' Atari compatible TTB-800 trackball.

Kraft joysticks put the competition to the test.

Automatic firepower for itchy trigger fingers with Questar's Blaster!.

an ambidextrous joystick, the Enjoystick, a $34.95 unit featuring a reversible firing button for lefties. Kraft's either-handed model, the Switch-hitter, is priced still lower at $19.95 and carries a one-year limited warranty. Wico's Boss, also $19.95, contains a printed circuit board with five built-in leaf switches "for greater flexibility," according to Gordon Goranson, company president.

Zircon International came to market with the lowest-priced VCS trackball at the show, a $29.95 model called the Track-Ball, as well as the first "electronic" joystick, the Z-Stick ($19.95), which allows players to selectively eliminate diagonal cursor control when scores can clearly be improved by using the x-y axis only.

"The advances in Atari VCS and compatible software have been so great that the simple joystick is no longer adequate for today's serious players," explained Jeff Wise, Zircon marketing manager. He cited Activision's new Decathlon game as an example of the more sophisticated cartridges requiring greater degrees of hand control.

Another unique offering was Questar's Blaster, a $14.95 plug-in module that converts any firing button into a "high-speed machine gun trigger," according to the company.

Although Atari doesn't make a direct cent off the accessory firms, it's obviously pleased as punch that the ancient VCS is still the apple of everyone's eye. "Cartridge sales in April of 1983 were up 10 percent over the same period in 1982," remarked Dave Ruckert, senior vice president of marketing for Atari's Consumer Products Company at a last-minute press conference at the June show. "Independent market studies show continued support for the VCS format." From information gathered by a recent Gallup survey, he added, 10 percent of U.S. households are likely to purchase a VCS over the next 12 months. Current owners, then, can keep on playing, assured that not even the lowest priced home computer will put the Video Computer System to its final, long-deserved rest.

"The VCS game business is still healthy as hell," Ruckert proclaimed.

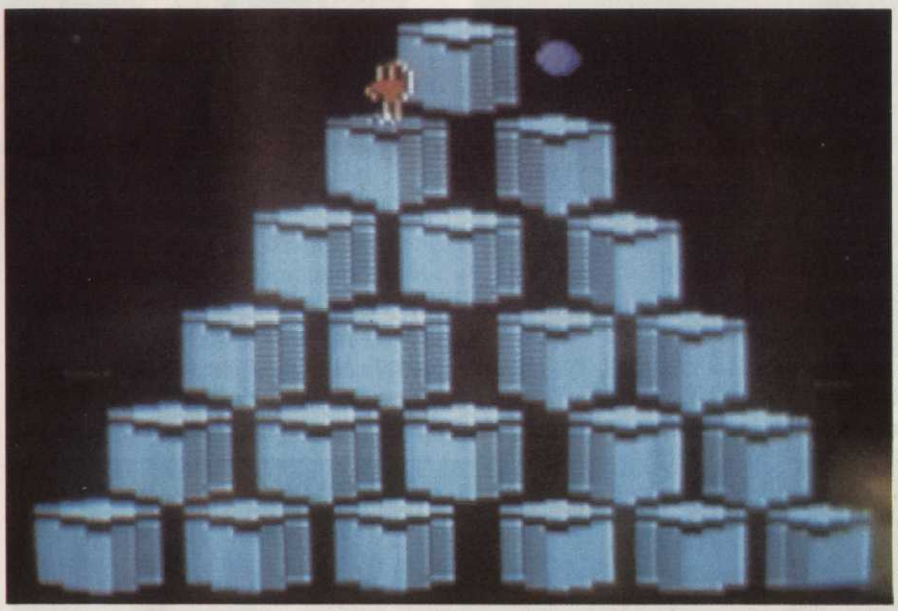
Survival of the Fittest

By Mark Brownstein

Boston and New York have Marathons. England and France have channel swims. And next year, Los Angeles will have the Olympics.

But while Chicago may not host any of these sporting events it does have its own version of physical fitness called the Summer Consumer Electronic Show. Running through the main hall of McCormick Place, I made my way past the usual mix of standard electronics merchants, briefly checking out the latest in portable stereos, color TV sets, and other new gadgets, and finally reached the Atari display. Atari has finally come out with a new line of computers, and their previously announced add-on for the VCS. The new Atari line replaces the 400, 800 and 1200XL with some new numbers: 600XL, 800XL, 1400XL and 1450XLD. The new computers reflect Atari's obvious effort to remain competitive in an increasingly tough market. Each unit has a group of special keys, including restore, help, and others. Overall, the offerings didn't seem tremendously impressive, although this initial view might change given some hands on experience.

Atari's VCS add-on has been going through an identity crisis. Originally called "My First Computer," that name was dropped being replaced temporarily with the imaginative title "2600 Computer Keyboard," and now carrying the moniker "The Graduate." The Graduate appears to be fairly well supported, will have a low cost stringy floppy data storage system, and should be well supported with software. Whether the cost (and marginal graphics capability inherent in the VCS) makes the Graduate competitive is open to debate.



Photos by Roger Sharpe and Perry Greenberg

*The next Pac-Man? Parker Brothers is banking on Q*bert's success in multiple formats for the top game systems and personal computers.*

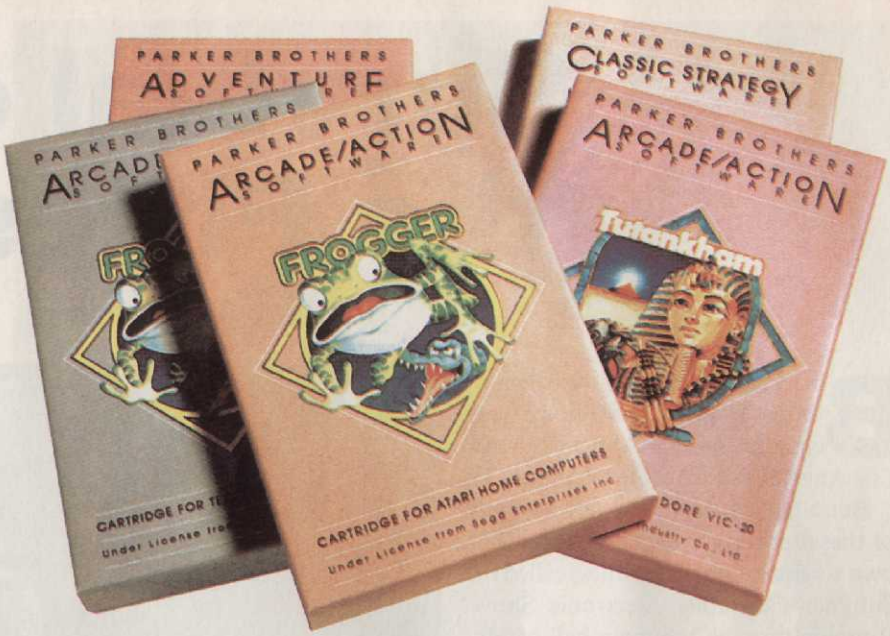
Atari also showed an interesting (if deceptive) demonstration device, which they call Eric II. This unit utilizes a very high-image quality laser disc player to respond to input from the keyboard. In effect, what it does is ask what you want to know about the Atari computers. Depending on your response, the computer accesses the appropriate section of the disc for the answer. Since the laser disc gives a photographic quality television picture, the graphics can be very impressive. (If Atari was smart, they'd market the interface between the computer and the laserdisc, *stress* the fact that interactive disc technology is available for the Atari, develop some good laser software, and *use the technology to sell the computers.)*

Perhaps the most exciting products on display were those aimed at the younger market. The Children's Television Workshop showed some impressive educational games. There were some nice (yes, nice is the right word) Disney and Muppet character games, and the 5200 Sport Goofy seemed like a fun game. Atari appeared to be making progress in developing and learning software for all their systems.

Walking around a bit further brought me to Mattel's booth where they were

showing the Aquarius II, which has a much better keyboard, and reportedly has more memory (although current sources aren't giving out *any* information about it). The Mattel exhibit was basically a rehash of the January CES display. The Entertainment Computer System (ECS) was there, hooked up for hands-on use. The ECS is designed to interface directly with the Intellivision and Intellivison II. It has a smaller than standard size, 49 keyboard (usable, but not the best), available memory expansion and peripherals. The system is only so-so, but would be a welcome addition to many Intellivisions at about $150.

Mattel also announced a new game development system. While the graphics appear to be pretty good, the system is probably not the breakthrough the company claims it is. It will allow Mattel to create games rivalling the competition. However, much of what Mattel claims the Intellivision can do is technically beyond the design parameters of the system. What the new technology does is provide Mattel game designers with a system to make development of new, better games easier than ever.



NAP, makers of Magnavox and Odyssey were there with perhaps the biggest surprise—they are now developing and set to market games compatible with the Atari VCS and ColecoVision. Those people at Odyssey have some smarts. While they have dropped all price controls on the Odyssey II, they have begun developing games for systems with a larger user base. Already licensed is the Pink Panther character, and a host of other cartridges are busily being developed. Many of the Odyssey designed games will be available for all three systems, others only for Atari or Coleco. With any luck, they may strengthen their reputation as developers of quality game software and hardware, which may help sell more Odyssey II carts, and certainly won't harm the sales of their new computer, when and if it ever comes to the market.

Tigervision was also misplaced in the main building showing a number of rather impressive software for the Atari VCS and Texas Instruments computers. Otherwise of interest in McCormick Place were the controllers offered by Discwasher. Their PointMaster Quik-Stik is a creation which snaps on over the standard Intellivision controller. Unlike the add-on sticks available, the Quik-Stik has a large ball at the top, and can be easily removed. Another nice device is an adaptor for the TI99/4A computer which allows you to use Atari compatible controllers (instead of the standard TI controllers which don't work

Sega brings a recent arcade hit to the home.

especially well.)

If last year's game exhibits were dominated by the dedicated (game only) machines and software, this year's emphasis was on computers. The computer games exhibition hall dubbed McCormick West offered a top floor with meeting rooms, press room, and displays by the various video and computer magazines. The main floor was a mix of computer hardware and software, and dedicated game software exhibitors, in addition to furniture and peripheral manufacturers.

On the main floor there were many newsworthy exhibits. Coleco showed ADAM, its new blockbuster computer system as well as game screens or complete games for the ColecoVision. This was in addition to the Atari VCS and Intellivision systems.

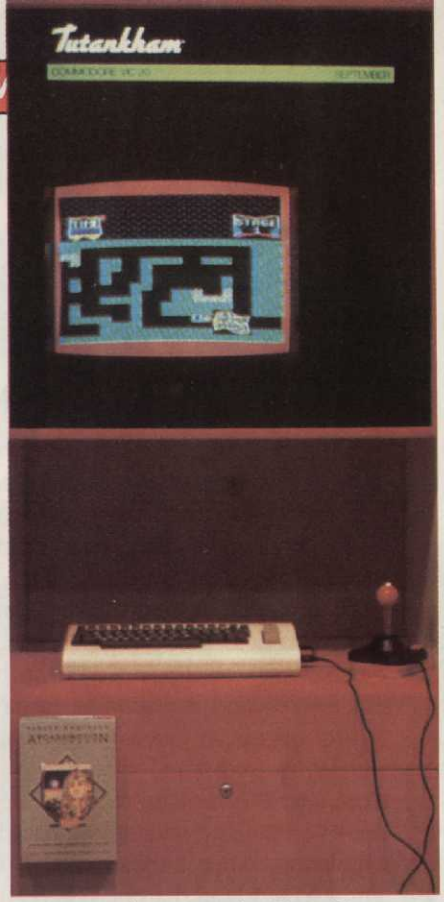
Parker Brothers, Imagic, Activision, Fox Video Games and Starparth all demonstrated games designed for computer systems in addition to the Atari VCS. Imagic, Microfun, Parker Brothers, and a handful of other software houses also showed ColecoVision game cartridges. The Atari 5200 was also not left out. Broderbund Software (and a few others) showed games adapted to this system. If sales of the 5200 reach high enough numbers, we can expect a lot of the better (meaning more complicated, better graphics, more game screens) games available for it.

Where just a few months ago it was possible to go through a list of software companies and easily categorize them ("this is a computer game house," "this is a dedicated game company"), that simple delineation has been blurred all out of focus. With Atari now programming games for other computers, in addition to Mattel and most of the other software developers, you can expect to see reviews on these pages in future months from companies you wouldn't have expected to see in that area of the business.

The bottom floor of the hall was practically dominated by computer manufacturers or support companies. Again, the fuzzy line upstairs was equally blurry downstairs. On this level, there were quite a few new computers being shown. The Tomy Tutor and Laser computers were quite impressive and received a good deal of attention. Unitronics' computer was very similar to the ADAM, but didn't attract much of a crowd.

In addition, the price wars have worked their way down to the floors of the CES with one company offering complete Emerson Arcadia systems (which will probably retail for around $50-60) and a selectionof 23 game titles (probable retail: $5-7). The firm, Kandy Man Sales, has also brought up all the stock of US Games and Data Age, and a few Telesys titles. These will probably retail for around $10. Although Kandy Man doesn't sell retail, the low wholesale prices on the games and the Arcadia should make for some very attractive retail pricing of relatively new games. Another firm is offering a $38 (retail) trakball controller, and new VCS games for a $10 retail. With the entry of new, low cost suppliers, the top end of the market may be forced to take a similar drop.

If everything that was shown at the CES ever made it to the store shelves, there would be a considerable glut on the market. In all likelihood, the big companies will probably fare the best (whether or not they deserve to). Judging from the show, it seems obvious that the future belongs to the computers. You may as well, as they say, relax and enjoy it—there's no stopping it now. ▲



Parker Brothers a-mazing Tutankham.

Getting a foothold of Amiga's joyboard.

Vectrex isn't just playing games anymore with the unveiling of a new computer keyboard.

WAR GAMES

A Battle Plan For Attacking Video Simulations

By Rich Sutton

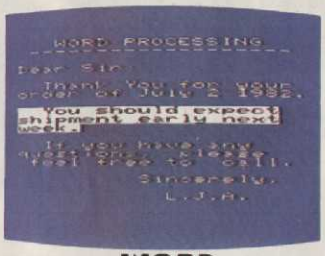
By now almost everyone recognizes that video games have distinctive categories whether they are coin-op models or home versions. You can choose maze games, space games, shoot-'em-ups, racing games, sports and much more. However, one area that has a rich history and is beginning to have a greater impact in video game design is simulation creations, or *war games*. **Computer Bismarck** by Strategic Simulations was the first widely sold computer simulation, while another early effort, **Three Mile Island,** had players trying to execute a cold start-up of a nuclear reactor and then operate it in a manner which would result in a profit. These two early examples are still very popular with computerists who want more of a problem than dodging invaders in a no-win situation.

This isn't a *knock* against other types of video games, but rather the acceptance that simulations require deductive reasoning and pose a solvable problem with many possible results—the most

Illustration by Gary Yealdhall

IF YOU OWN A COMMODORE VIC YOU KNOW IT CAN DO ALL THIS.

BASIC PROGRAMMING



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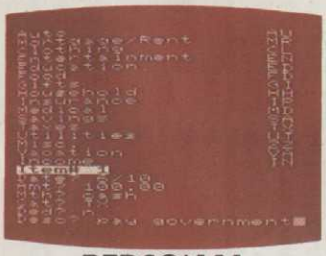

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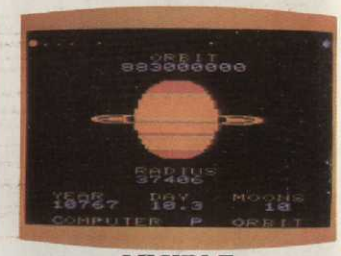
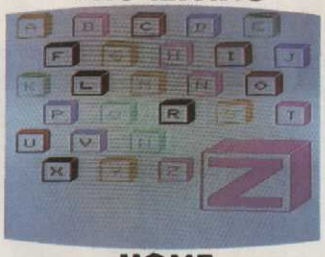


VISIBLE SOLAR SYSTEM

BINGO/ SPEED MATH



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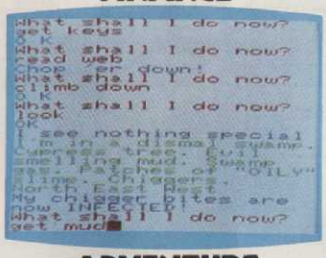

ADVENTURE LAND

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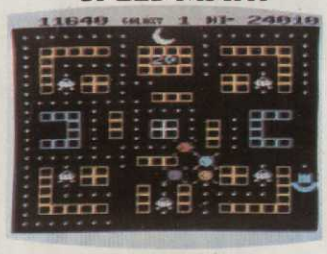

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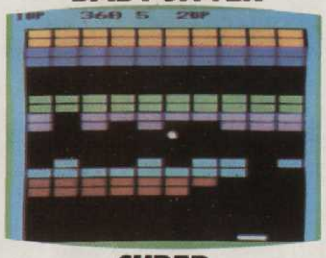
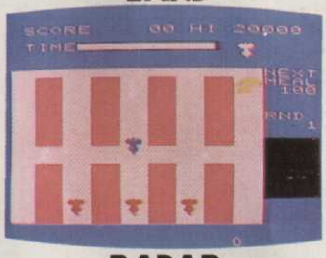
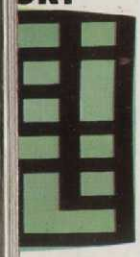


SUPER SMASH



RADAR RAT RACE

JUPITER LANDER



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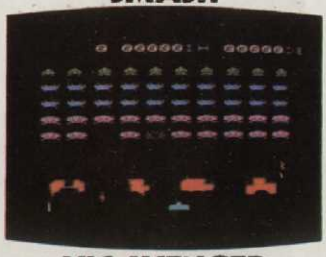
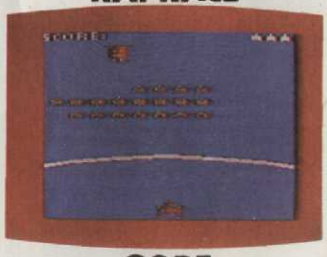


VIC AVENGER



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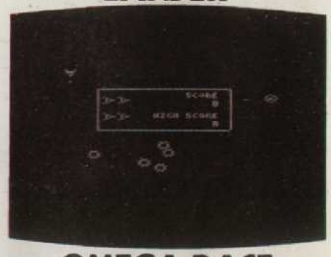

OMEGA RACE

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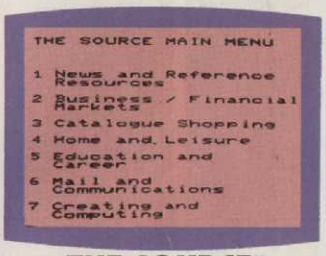

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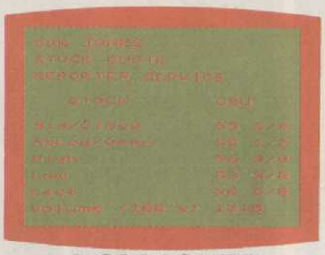

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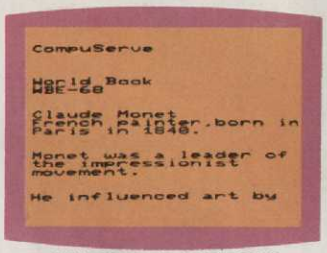

WORLD BOOK ENCYCLOPEDIA

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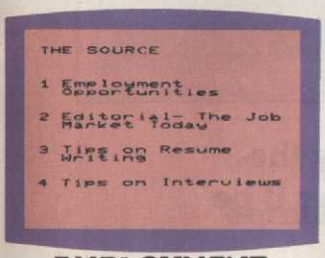
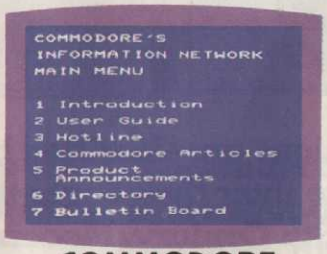
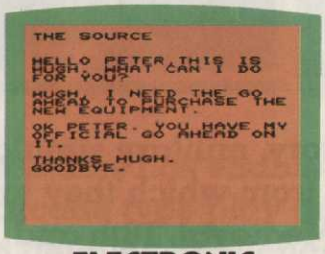


EMPLOYMENT OPPORTUNITIES



COMMODORE INFO. NETWORK



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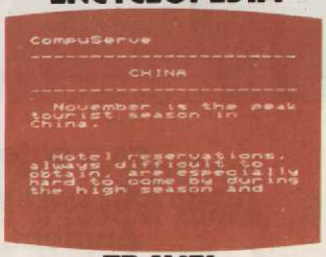

TRAVEL INFORMATION

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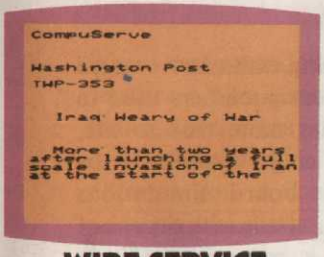
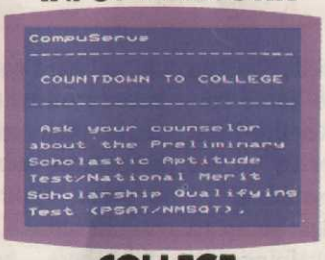
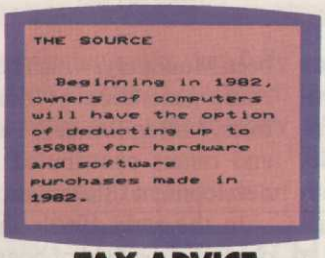


WIRE SERVICE NEWS



COLLEGE PLANNING



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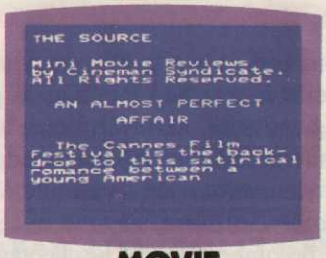

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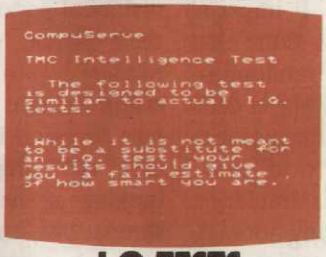

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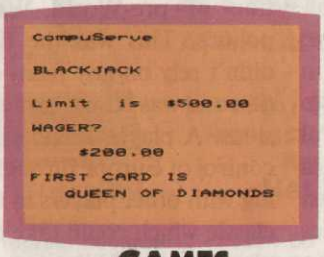

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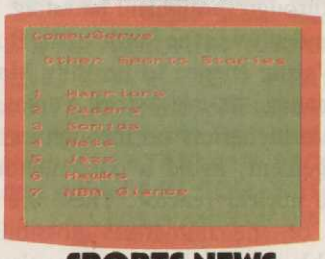

SPORTS NEWS

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can answer any questions you might have about your computer, or programming, or anything else Commodore-related, via electronic mail.

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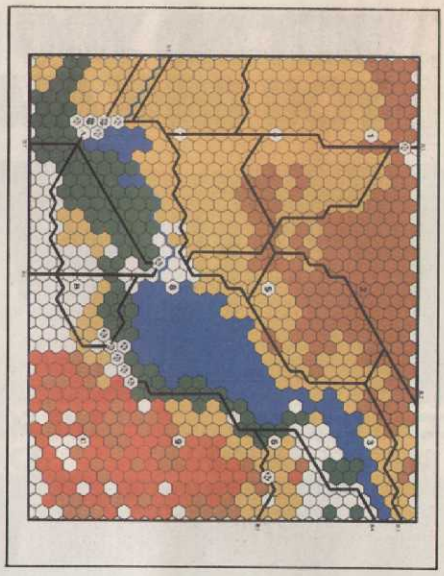


". . . as a category, military simulations are classified by the historical period from which they take their theme whether it be Ancient, Medieval, 18th and 19th Century, Modern and Science Fiction. . ."

obvious being victory. For many years people have searched for thought provoking activities, and with home computers (especially the Apple), good, detailed simulations are available. With the proper software, anyone can suddenly become a Bobby Fischer and a chess champion; or an Omar Bradley, and, through thoughtful planning, single-handedly win the Battle of the Bulge. There's the chance to be Billy Martin and manage the New York Yankees to the World Series; or through careful management, avoid a core meltdown with a nuclear reactor. These are just some of the numerous possibilities available to the adventurous souls who own a home computer with such titles as **Football Strategy, Scrimmage, Dispatcher** (railroads), **Business Strategy** and **Stock Market** topping the list.

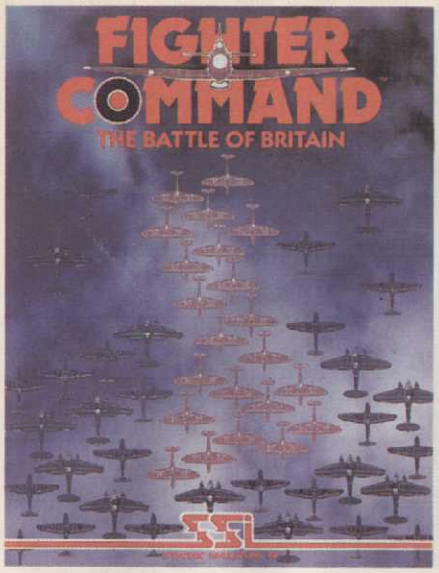
People for many years have developed leisure games and activities which stimulate thought and competition. One of the earliest to achieve this was chess. However, as we have progressed, people created games that were harder to play than chess and with more intricate rules. The most complex games rely very little on luck, and force participants to think more and more. Other variations followed which attempted to combine decision making with luck (losing on the throw of the dice). One of the all-time best-sellers in this class of simulation has been **Monopoly**, which helped propel an entire generation of board game formats. Milton Bradley, Parker Brothers, and others contributed greatly to the development of simulation gaming.

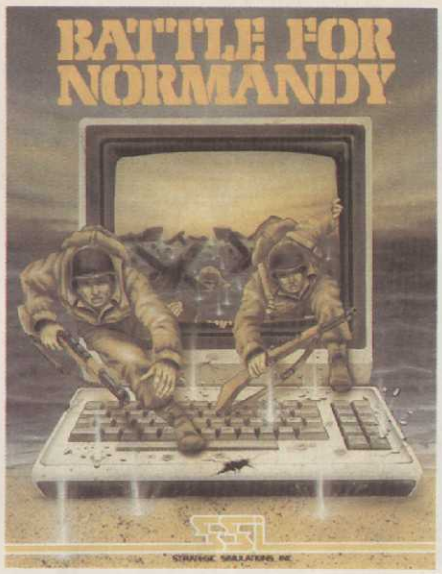
In the early 1960's things began to change in the field of board gaming with the publication of **Diplomacy**, a simulation of pre-World War I imperial politics. This was the first game that didn't rely on any form of randomization and was based on multi-player decisions. A player would vie for majority control of Europe through "deal" making with other players in this simulation classic which could take many hours to play. Avalon Hill, an early pioneer in simulation gaming, has published many titles which also fall into the category of being classics, including **Waterloo, Battle of the Bulge, Gettysburg** and **Africa Korps.**

As more and more people played board war games, publishers entered into the marketplace, with the most prolific being Simulations Publications of New York City. This company offered at least one new game every other month for many years as the evolution of the art form continued due to the wealth of material on military subjects and the mystique of the "what if" factor concerning strategy and tactics on the battlefield. The armchair generals could now prove if their theories were valid.

As board gaming enthusiasts wanted more realism these publishers tried to make their games more true to life, sometimes sacrificing playability in the process. Today board simulations number in the hundreds with dozens of publishers. As a category, military simulations are classified by the historical period from which they take their theme, whether it be Ancient, Medieval, 18th and 19th Century, Modern or Science Fiction. One of the current favorites is fantasy gaming in the class of Dungeons and Dragons. In looking at the growing popularity of simulations, the rise in personal computers has enabled many gaming enthusiasts to look beyond arcade-type play and consider more sophisticated and detailed challenges. And, with the power of computers, players don't have to worry if an incorrect move has occurred, since the computer will signal your error. The computer takes care of all rules and won't let you do anything at the wrong time as well as keep track of all book work and scoring. The player only needs to understand what he can and cannot do at a given time.

Computers allow the player to concentrate on playing the game and remove concern about rules interpretation. While a person is learning a new non-computer simulation a great deal of time is spent studying the rules, and try-





"...the rise in personal computers has enabled many gaming enthusiasts to look beyond arcade type play and consider more sophisticated and detailed challenges..."

ing to understand how to do certain functions. With a computer-based simulation, a person may only need a cursory review of the rules prior to playing, allowing you to concentrate more on playing and competing rather than fully understanding the whys and hows which might have no bearing on your mastery of the game.

There are several different kinds of computer simulations to be aware of, which fall into four broad categories: War games, Fantasy, Sports and Other. War games, or military simulations, comprise the most available listing with

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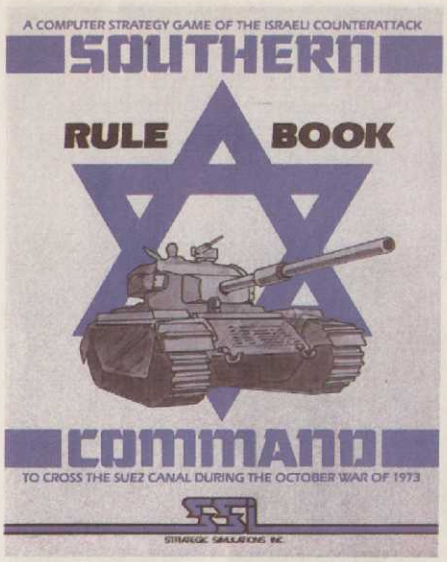
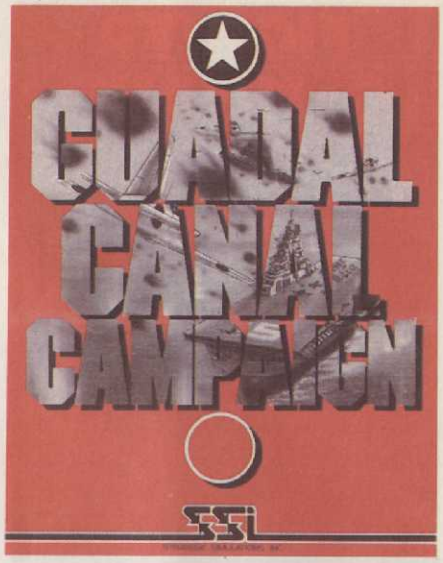




"...some of the types of simulations from SSI include Napoleonic wargames, aircraft combat, infantry combat, naval encounters, and modern warfare..."

the foremost publisher being Strategic Simulations. The company was the first to publish a detailed computer war game, **Computer Bismarck,** which bears a striking resemblance to an Avalon Hill creation. Players needed to form very good strategies in trying to find, then sink the Bismarck with the North Atlantic as the playing area.

Between them, Strategic Simulations' games are the most complex while many of Avalon Hill's are less so. Some of the types of simulations available from SSI include Napoleonic war games, aircraft combat, infantry combat, naval encounters, and modern warfare. The best of these are the grand strategic World War II simulations where the players may command submarine groups, naval fleets, air squadrons, and ground combat troops.

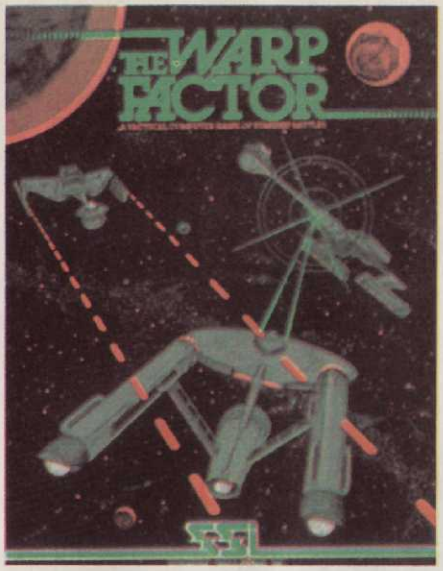
Fighter Command—one of the newest releases is an excellent simulation of the struggle of Great Britain against Germany during the Battle of Britain. Players must allocate their air squadrons to specific offensive or defensive situations while attempting to determine where the waves of German bombers are going to strike, as well as the composition of each squadron and its readiness. There is also a need for the British player to defend coastal radar installations or risk losing them and not have enough notice of an air strike. Once players have made their allocations the action starts with play primarily done by the British. When the real time clock begins the objective is to make changes in strategy in order to effectively repel the German air squadrons. (A simulation for advanced players, Apple II; disk format; $59.95.)

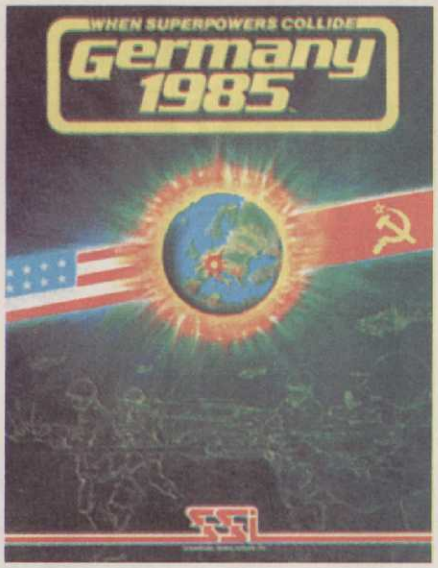
Guadalcanal Campaign—recreates the War in the Pacific using the historical United States and Japanese units. The object is for both sides to occupy and hold Guadalcanal, with players creating task forces and searching for enemy fleets in the South Pacific—all the while landing troops and supplies at Guadalcanal. Ground combat on Guadalcanal is optional when one or both players have adequate supply, and victory points are awarded for damage done to ships and submarines, as well as for holding the island. Sound strategic decisions and effective operations may ensure success with one of the primary objectives being to locate and sink your opponent's aircraft carriers and battleships. (One of the best simulations available for beginner and expert alike, Apple II, II Plus, IIe; disk; $59.95.)

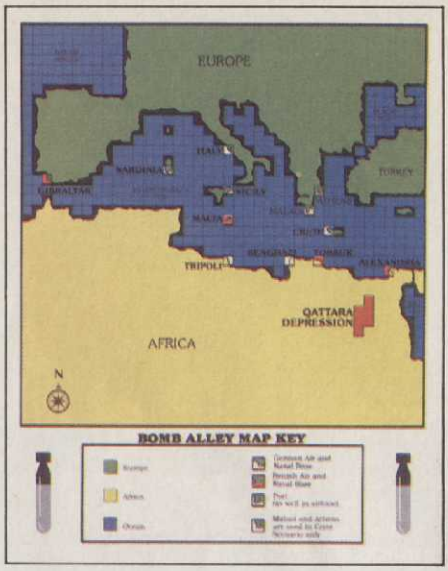
Bomb Alley—recreates the Mediterranean Campaign for the Summer of 1942. The main objective here, is for the British and Germans to try to occupy and hold the island of Crete. The opposing forces operate from naval and aircraft bases in Southern Europe and Northern Africa. Again, as in Guadalcanal Campaign, supply and ground forces play an intricate role although one of the unique concepts is the potential for a paratroop assault on Crete which is very original and realistic. (Highly recommended for the intermediate player, Apple II, II Plus, IIe; disk; $59.95.)

Knights of the Desert—recreates the North Africa Campaign in which Germany's Rommel attempted to force the British from their stronghold at Tobruk and push them all the way back to Alexandria. Both sides must be careful to maintain adequate supply and morale levels to ensure success. Play is accomplished with graphics and the keyboard as players move units on the hi-res map and opt to initiate combat. The German player must be very careful in his offensive maneuvers because of limited supply, whereas the British player must be careful in his retreat and setting up of fortifications. Knights of the Desert seems to be very close to Avalon Hill's classic game of Africa Korps. (Highly recommended for the beginning computer-war gamer, Apple II, Atari 400/800; disk; $39.95.)

Southern Command—recreates the October War of 1973 which pitted Israel against Egypt. This is a complete tactical war game presented in hi-res graphics. Each unit is represented graphically on







"...there are tanks, artillery, self-propelled guns, rocket launchers and, of course, infantry in this very playable, yet frustrating game..."

the screen and movement is achieved by selecting the direction from the keyboard. There are tanks, artillery, self-propelled guns, rocket launchers and, of course, infantry in this very playable, yet frustrating game, if you're playing against the computer. The map is about 12 screens in size and automatically scrolls as you move into a new area. The objective for the Israelis is to push the Egyptian forces across the Suez Canal and occupy several major cities. A suggestion is to play against the computer a few times in order to learn what not to do and how to find the best tactics. (Highly recommended for the intermediate gamer, Apple; disk; $39.95.)

Germany 1985—is a hypothetical simulation based on a confrontation between NATO forces and Warsaw Pact forces. Play is similar to that in Southern Command, but a bit more difficult in terms of tactical level and there's the addition of attack helicopters. If a unit is hit during combat, the odds of elimination are better because some of the combat units have tactical nuclear weapons. Another difficulty in this simulation is the terrain, with units moving better and easier in the desert than they do in forests. (Excellent for the advanced gamer and could be very frustrating for those not familiar with computer wargaming; Apple; disk; $59.95.)

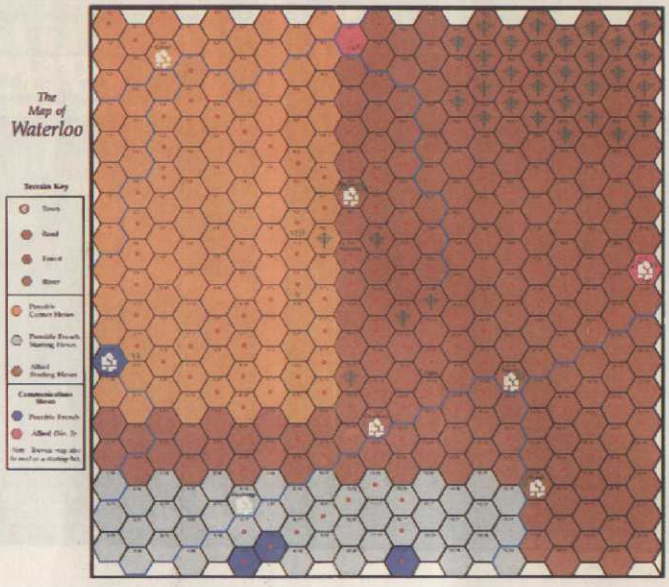
Torpedo Fire—is a simulation of World War II submarine encounters. Although the effort is realistic enough, the execution seems to provide an example of playability having been sacrificed as a result. The game uses simulated radar and sonar to locate and identify enemy ships and submarines. Players must determine the direction and speed of an enemy target by using a hi-res periscope, in order to set the firing arc and interception speed of a torpedo. This is most difficult even with the computer's assistance as the surface player must determine the depth and speed of the enemy submarines in order to lay a deadly depth charge pattern to protect his convoy. (Only recommended for the advanced player who desires the most accurate simulation on the market; Apple; disk; $59.95.)

Computer Air Combat—gives players a choice of 35 World War II combat aircraft representing the United States, Great Britain, Germany, and Japan. The scenarios enable players to reenact aerial combat which can include intercepting a bomber formation, dogfight, or just a shoot-'em-up with such aircraft as Stukas, British Spitfires, Mitchell B-25s, P-38's, Zeroes, Mustangs and many others. Computer Air Combat recreates the best and worst points of the aircraft used in the game, providing some which were good at firepower and poor on maneuverability as well as vice-versa. It's, presently, the only game on the market for tactical air combat, with graphics used to only show relative positioning on screen. (Apple; disk; $39.95.)

Warp Factor—is a tactical spaceopera war game, where players build the spaceship of their dreams and start shooting. This was the first comprehensive space simulation involving ships we have come to know and love from Star Trek and Star Wars. Warp Factor uses real-time maneuvering and firing techniques, but is another example where detail has sacrificed playability. The time to input a complete set of orders for 6 ships could take as long as an hour if the player really pays attention to detailed tactics. In fact, the rule book must be read thoroughly before playing and must be periodically read as one is playing. Because of this, only the seasoned star pilot should invest in it. (Apple; disk; $59.95.)

Pursuit of the Graf Spee—simulates the British trying to locate and sink the Graf Spee during World War II. Historically, the Graf Spee terrorized the British South Atlantic convoys and play is similar to that used in Computer Bismarck. However, some of the rules of fuel supply have been changed. (Very good for the beginner and intermediate-level computerist; Apple, Atari 400/800; disk; $39.95.)

Napoleon's Campaigns 1813 & 1815—is one of the most advanced com-



"...simulations can be fun, difficult, and provide for an intelligent competition which a person can win if they only remember that war, from any time period, is hell..."

puter simulations available. Napoleon's Campaigns recreates the Battle of Waterloo and Battle of Nations at Leipzig. As the player you're not actually participating in the conflict portion, but rather issuing orders relayed by messengers to the friendly units. Napoleon's Campaigns recreates what several other board games have attempted—the fog of battle. If players do not effectively define routes for messengers on the hires map, several turns can pass before an order is received and executed. At times the play can be very confusing if players aren't cautious in issuing orders. Another note is that although you can see your units on the playing area, you'll only know the status of any units through return messenger. (For those who want a grand strategic simulation, including advanced players, but definitely not for the novice; Apple; disk; $59.95.)

Pursuit to Gettysburg—is simply Napoleon's Campaigns with a new hires map and different names. This is an example of a publisher trying to get more mileage and a different appeal from an existing simulation. Many people might not buy a simulation of Napoleonic Battles, but would buy something relating to the Civil War. (Again, Pursuit to Gettysburg is only for the advanced player; Apple; disk; $59.95.)

Many other titles obviously exist providing a range of simulation themes and action with some of the more notable efforts being **Operation Apocalypse, Battle for Normandy, The Battle of Shiloh,** and **Tigers in the Snow**. These games are not as sophisticated in their strategic methods, but as a whole, feature a variety of challenges. Except for Battle for Normandy, the other three have been in publication for over a year and a half, and are popular for an easy computer-war gamer.

Strategic Simulations does, in fact, publish some the best military simulations available but they also publish one which should be viewed with caution before purchasing. This game is **Computer Ambush**. The concept is very good, but the original was unplayable because of the time to execute moves—sometimes up to one hour. Strategic Simulations published an update to Computer Ambush a few months ago alleging that it runs 40 percent faster, however, they don't state on their packaging its incompatibility with the Apple IIe. What cannot be fathomed is that they would partially rewrite the program to run faster and not make it compatible to the most recent version of the most popular computer available.

This aside, the reason Computer Ambush is very unique as a simulation is that it pits a squad of United States soldiers against a squad of German soldiers in a "typical" French village. The players are squad leaders "telling" the soldiers what to do and when to do it. The characters may suffer from fatigue because of getting tired and soldiers will need to reload their weapons and also aim and fire them. Weapons include rifles, machine guns, grenades, satchel charges, and hand weapons. Players are able to see opposing units as if they were present, i.e., if you're in a building you cannot see through a solid wall. The characters present have unique capabilities in different areas; some aren't good at firing aimed weapons, but may be good at running. This bears a striking resemblance to several tactical board-war games by Avalon Hill and Simulations Publications and could have been one of the top simulations, but falls far short of the mark.

In closing, if you would like to play a good simulation, remember that it may take hours to play (most allow for saving to disk). If you're willing to make the commitment, you'll find some of the most challenging leisure time computer activities which could take up to eighty person hours, but it has several shorter scenarios on the disk. Simulations can be fun, difficult, and provide for an intelligent competition which a person can win if they only remember that war, from any time period, is hell but, then, that's the name of these games. ▲

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COIN-OP SHOP

Change is In The Arcade Air

By John Holmstrom

Walk up to your favorite video game, the one that you've spent so much time and so many quarters at, and sometimes you'll receive an unpleasant surprise—a new chip. The old patterns won't work, the action is speeded up, and before you know it you've lost another quarter. In some cases, it's not a new chip, instead the operator chooses a higher level of difficulty or higher extra ship levels. In any case, the end result is that you'll feel cheated.

If a game becomes popular, the manufacturer will often provide operators with a slightly different program to keep high scorers from spending hours on the machine. In certain locations this is necessary. If a popular game is monopolized by one or two wizards and it turns away business, it won't pay for the owner to keep the machine there. Sometimes, however, higher difficulty levels and new chips are just the result of the operator's greed or foolishness.

For instance, a laundromat had a Robotron with an old program and a bonus man for every 20,000 points. Many players picked up on the machine because they could score so much higher. Once the owner saw that people were getting scores in the millions, he put in a new chip and bonuses were set back to 25,000. As a result, the machine is making less money. The owner won't change back because he doesn't like the idea of people scoring easily on his machine.

Another example is Atari's Xevious, a game that was backed by a television advertising campaign promoting it as the kind of game that players couldn't play on a home system. Xevious has a difficulty setting that is almost impossible to beat. When it first arrived in New York City, most operators set it at the highest level immediately. The one arcade that set it lower is the only one that seems to have a line of people waiting to play it whenever I visit. The players know which arcade has the easiest machine, so why should they waste quarters on a game with the most difficult setting?

Home video game systems allow players to select their own level of difficulty. Many Atari games offer the player the option to begin at different levels of play (Tempest, Quantum, Black Widow, and Food Fight). The Broadway Arcade in New York advertises the new Robotron program on the machine attract mode. These are all reasonable alternatives to learning how difficult a game is going to be after you've spent your quarter.

As long as video games are too difficult for the average player to enjoy, more of them are going to spend time and money at the movies, sporting events, or their home video game system, where they can select their own level of difficulty.

Only because Centuri seems to have a hot one with Gyruss did we decide to only do a short take on this licensed conversion kit from Tehkan, Ltd. Guzzler is a maze game similar in concept to Pac-Man, but its use of free-form mazes, attack button, and wide variety of screen layouts separate it from that singular standout.

The guzzler is a little blue creature who is mostly mouth. His job is to extinguish flame demons, fireballs, and flashes. As he walks around he picks up water automatically, and he can pick up water from the puddles that are placed strategically around the mazes. The object of the game is to put out the four fireballs that are stationed in the maze.

The fires spawn demons in ever increasing numbers, and there is a limited supply of water, so you have to be fast in moving guzzler, via joystick, around the maze. Once the fourth fireball is extinguished, you move on to the next, more difficult maze pattern, of which there are plenty. You gain points for just about everything you do in the game, which adds to the fun.

A nice touch is the lucky wheel at the end of the game. A wheel of eight characters, seven demons and one guzzler, spins around. If you can match the guzzler with his twin at the bottom of the wheel, you win a free man.

Guzzler's graphics are good for a conversion game, and the game play is very involving. The pacing of the action is fine, and the scoring is very fair. The sound track is good, and the maze configurations are very challenging. For those who enjoy maze games, Guzzler can be a welcome addition to the menu, and at another point in time, it wouldn't have been surprising to find this effort making a splash on its own. However,

ATARI'S

Fans of Tempest should keep an eye open for Black Widow which is another fast and furious shooting game with solid vector graphics. A dual joystick control effort, the one on the left moves the black widow around it's web while the one on the right is for directional firing. The premise is that you must rapidly move a spider around a web avoiding different onrushing bugs, while picking up bonuses that they leave behind once they're shot. The key to playing Black Widow lies in the various bugs' powers and characteristics. And there's quite an array which you should be prepared for if you're going to get anywhere with the game.

MosQuito—if shot, becomes $.

Beetle—eats $, if shot becomes $.

Hornet—lays eggs on $, if shot becomes $.

Egg—grows to become hornet or spoiler. When pushed off web scores 500, 1000, 1500, 2000, or 2500.

$ Grub Steak—tag for points..500, 250, 100, or 50, the sooner the better.

Spoiler—invulnerable. Only destroyed by grenade, bug slayer or rocket bug.

Grenade—explodes if shot. Bugs and eggs within kill zone score 500 points each.

Rocket Bug—invulnerable. Launches "rockettes" at you from other bugs it tags. Shoot rockettes for 100 points each.

Thunderbug— if shot breaks formation and attacks. Shoot again to explode T-bug and earn 250 points. Shoot and explode all T-bugs for 5000 points. Keep away from all T-bugs to earn 10,000 points.

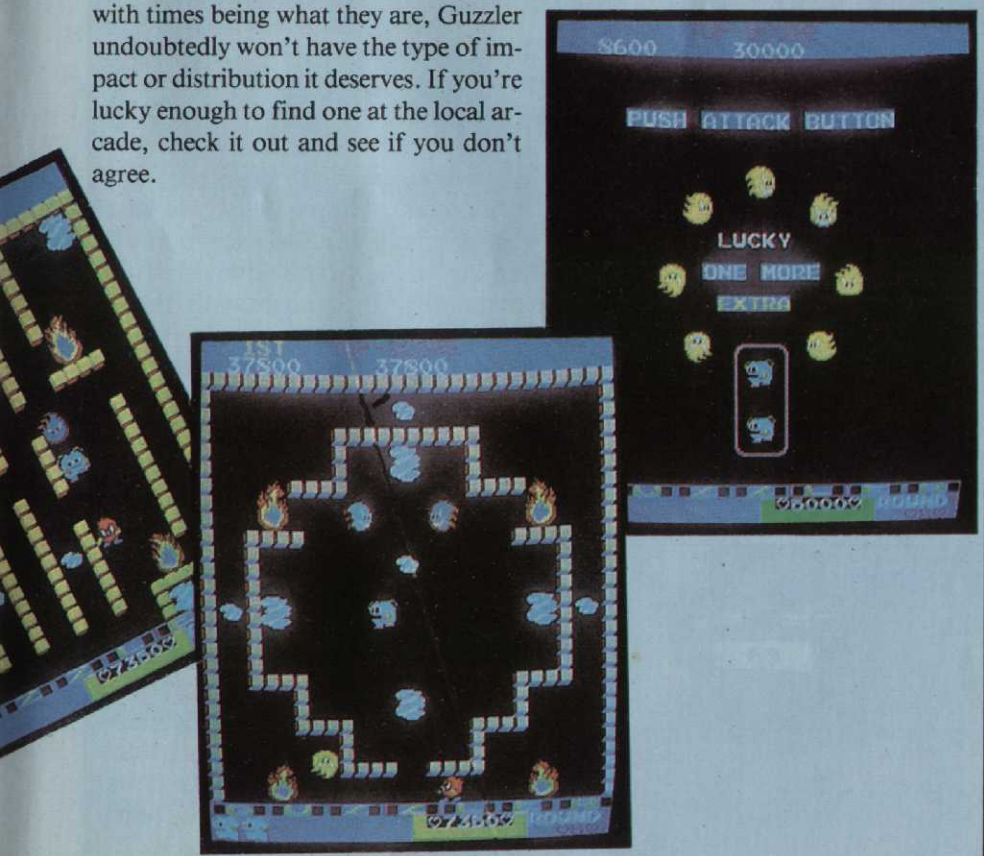
Bug Slayer—harmless to you, invulnerable, competes with you for food. Beat it to its flashing prey for points.

Although these are pretty explicit instructions, I could have sworn that I saw a bug that was not on the list in a later round. It was a giant dollar sign with wings like a dragonfly. I shot it so fast I didn't find out anything interesting about it, other than the fact that it definitely wasn't invulnerable.

Once you understand and recognize the different bugs, Black Widow is an interesting shooting game. The graphics are excellent, the sound track is good, the action is fast, and there are a few play options. As with most Atari games, the player can select what round of play he or she wants to begin at. The most interesting option is whether to shoot at, or avoid, the Thunderbug waves, since you receive a hefty 10,000 points for NOT shooting at them. Another decision the player must make is how to deal with the red part of the webs, which the spider can't cross.

Black Widow is a worthy enough effort and has enough variety and play options to keep even jaded shooting game fans from getting bored. Since it's a conversion kit for Atari's Gravitar game, however, it might be hard to find. But if your arcade has a Gravitar that's collecting dust, maybe you can talk the owner into getting one.

with times being what they are, Guzzler undoubtedly won't have the type of impact or distribution it deserves. If you're lucky enough to find one at the local arcade, check it out and see if you don't agree.



BALLY/MIDWAY'S

JOURNEY

Bally/Midway has had tremendous success producing cross-promotions with their pinball and video games. There was Wizard in 1975, which was inspired by the movie *Tommy* and then, a year later Elton John graced Capt. Fantastic which has become a classic of sorts. Kiss and The Rolling Stones can still be found in some locations, and can we forget Tron and its national tournament/movie tie-in. Well, now Bally has locked in with another musical group, Journey, to produce the world's first rock 'n' roll video arcade game. However, there's a difference this time since the game is also the first reverse license from a home game (Data Age) to the arcade. And there are differences to say the least.

Journey opens with the group (portrayed in *Sixteen* Magazine-style black and white photo faces with little cartoon bodies) hopping into the Journey "Scarab vehicle," which flies into the forehead of a big blue face wearing an astronaut's helmet. The player then chooses which one of five planets to travel to. Each one features a game starring one of the Journey members in which he has to travel past obstacles to reach his musical instrument. The drummer has to bounce on drums until they're all the same color, then bounce up to his drum kit, the singer has to float past swinging gates, a guitarist has to jump over things while walking down ramps, etc.

Once they reach them, the board changes and the rock star uses his instrument to shoot his way back to the Scarab vehicle. Once the player passes the first five planets, Journey gives a live concert, while the player operates "Herbie" the roadie, who tries to keep frenzied "groupoids" from attacking the famous rock combo.

With joystick and button control, Journey has problems. The game play is confusing since there are no clear and simple directions on how to do what you're supposed to be doing. If you've played Tron, which had four games in one, the opening sequence is easier to understand.

However, the fact that you might have to land on drum tops once to change their color, and then again to have them disappear, thus completing the screen, is never really detailed. And, once you've done this, your drummer has to fend off rushing attackers, blasting them with the fire button, while you move down to the bottom of the screen in order to escape safely. Players are never told they shouldn't stay and fight all day at the top of the board. Make a mistake and you get to redo the entire screen, or choose another one, but eventually, you have to clear all five.

Much of the action is reminiscent of other games whether you're trying to

make your way down a river and then back up, shooting at enemies on the shores, or running and jumping along sloping inclines while avoiding oncoming somersaulting objects. However, once again, it's never explicitly described as to what you should or could be doing to maximize your time and energy. And I don't think we've come so far that we don't need some instructions to tell us what's going on.

Beyond this is the concern that none of the adventures is strong enough on its own to be a game. At least with Tron you had four decent screens that really made that effort four *games* in one game. Here, you have some limited action thrown together for the sake of trying to create the perception of this very complex and expansive coin-op experience.

Admittedly, if Data Age could have had anything even closely approximating what Bally/Midway has accomplished, they might still be in business today. But that's in terms of home video and not what we've come to expect from arcade-quality equipment. The graphics are brilliantly colored, but the lack of depth to the images is disheartening and whoever dreamed up the use of little black and white heads for cartoon-like bodies should be sentenced to play this game, and no other one, for the rest of time. Even the sound track, which you would think should have been a strong point, is far from satisfying or remotely like real music. For fans of Journey it's got to be a disappointment to be let down twice. For the rest of us, there are other games in town.

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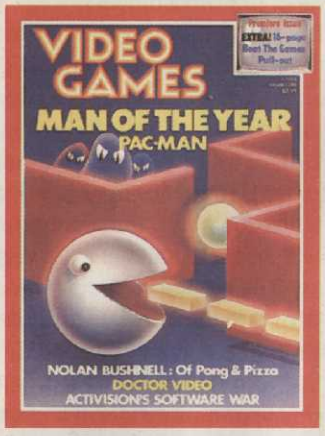

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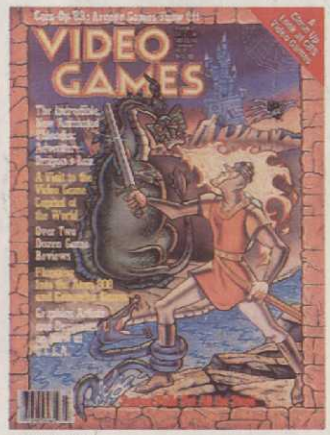

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SEGA'S

Video has occasionally tried to capture the game of baseball, but the complexity and subtlety of the National pastime has never translated easily even with Atari's old trak-ball version. The sport involves so many people including batters, fielders, runners, and pitchers who interact in so many ways to different situations. It would appear on the surface to be nearly impossible to translate to one or two player action without leaving out some of baseball's essential elements.

Nonetheless, there have been some excellent video baseball games in the past. Midway's Extra Bases offered great two player head-to-head action, featuring excellent pitching and batting control and good joystick movement outfield defense. Intellivision's Baseball game offered all that and more, and remains the standard that others are judged against, at least in the home.

But now there's a new contender to the crown, Sega's Champion Baseball, which is the latest arcade attempt to capture the grand old game. It adds the all-important element of managing your talent on the field, previously ignored by video baseball designers. The first task is to choose your team from one of 12 Major League Baseball franchises that are listed on screen. Once your team is set, the computer picks the home team. Then the umpire yells "Play ball!" and the game begins. Everything proceeds exactly as it would in a real live game.

You can only play against the computer. The controls are one central joystick that's flanked by six buttons, three on either side. The joystick controls the batter's or pitcher's stance and which base to throw the ball to once it is fielded. The blue "A" button changes the batter or pitcher when a managerial move is desired. The red "B" button controls swinging the bat, running, pitching, bunting and throwing. The yellow "C" button controls stealing and returning to a base. The computer controls the rest of the game, including the umpiring—which, as usual, is pretty bad.

What's great is that the strategy to winning Champion Baseball is the same as playing good baseball anywhere—FUNDAMENTALS. You win by hitting the curveball, pitching well, throwing to the proper cutoff man, advancing the runner, and making sound managerial moves.

The graphics and sound effects are two of Champion Baseball's strong points. There's a 3-D perspective to the field so that when fly balls are hit they disappear or grow larger according to your point of view. They even cast a shadow on the field. When you're at bat, the viewing angle is from behind home plate, and when you're pitching, the "camera" is in the center-field bleachers.

There is also information all over the screen. Besides the scoreboard, there is a ball, strike, and out count, the name of the batter and his stats, a graphic instructing which buttons can be pushed and why, and umpire's calls. Except for the fact that all the players are built like blimps, it's a very realistic game.

In addition to the time-honored baseball scoring, Champion Baseball has included some superfluous but interesting video game scoring—10 points for making contact with a pitch, 100 points for reaching first base safely, 1,000 points for each run scored, and more. The game designer is no fan of pitching and defense, since only 50 points are given for each out, and 20 for each strike.

The different teams do seem to share some of the characteristics of their big-league counterparts. Milwaukee is a good hitting team that doesn't run very fast, New York has a lot of power, St. Louis has good speed, and Montreal is good overall. Unfortunately, the computer usually picks a team that matches up very well against it. The player should have been left with that choice (in most cases it wouldn't make a great deal of difference), and also should have the home field advantage of batting last in a game like this. It would have been much fairer.

The game play has some serious flaws in it as well. When you're at bat, with a man on first, a ball hit deep into the gap or on the line, which is at least a double in any ball park, allows you to only advance the lead runner any extra bases. This prevents you from putting together a really big inning and getting a big cushion. In addition, on defense, you can't position outfielders, or move them quickly enough to make a good high percentage of good catches. There are also no switch-hitters, no stealing home, no infield shifts, no errors or balls lost in the sun by the opposing team, and no interference calls.

I personally found the pace to be very frustrating. Once a ball is hit, the fielders move so slowly that it feels as if you're watching an old-timers' game. On defense, the machine will pitch for you if you don't throw fast enough. There's no time to think about how to set up the hitter or groove in a good deuce. The joystick's control over the pitches is also minimal—there's very little in terms of a pitch's velocity which is indicated on screen. It would have been a more realistic game if a slow pace was used for pitching and hitting, and a faster pace for fielding and running.

Although it has a lot of shortcomings, Champion Baseball is captivating as you find yourself trying again to play longer. The game lasts for a minimum of one inning and can go on until the computer wins in its bottom half of any given inning. With a few minor changes, it could have been a great game. Instead, it points the way to bigger and better days ahead for video baseball games and, undoubtedly, other sports games.

ATARI'S

Once in a while a video game comes along that defies criticism. It is innovative, well executed, and goes well beyond what people's preconceptions of what a video game is supposed to be. Atari's Star Wars is in this elite class whether in an upright or cockpit cabinet. It's the ultimate spinoff game, a realistic simulation of the incredibly popular *Star Wars* movie.

Right away, Star Wars' attract mode takes its cue from the movie. The first screen carries the official Star Wars logo and tells the story of the game (and the movie) in a short paragraph. Two different screens then describe the game play and controls, and how to play, all in the language of the film, of course. A fourth screen details the different point values, which are too complicated to list here. Finally, the high scores are revealed.

Before the action starts, the player is allowed to choose which level of difficulty he wants to begin at, with compensating bonuses for each higher level of play (why is Atari the only manufacturer smart enough to offer this to players?). Once the preliminaries are finished with, the battle begins, and the incredibly smooth first person perspective and three dimensional effects take over.

The steering mechanism and four built-in triggers enable pinpoint shooting and flying accuracy as well as rapid-fire. The five laser-cannons that are located on the sides and bottom of the video monitor hit the "cursor," which is manipulated by the steering mechanism that also controls the direction of your ship. The mechanism is a nice copy of the firing triggers in the movie, all that's missing is a movable chair.

There are three chapters in the story of the game. In the first, your rebel cruiser dogfights with Darth Vader's ship and the Imperial Tie-Fighters. In the second, you maneuver past bunkers and deflector towers on the face of the Death Star, blasting them along the way. In the final scenario, you find yourself speeding through the trench of the Death Star, avoiding obstacles and blasting gun turrets then, finally, hopefully time a proton torpedo for a direct hit on the exhaust port target. What follows, if you're successful, is one of the most spectacular explosive light shows ever seen in a video game. Then it's on to do battle once again.

Throughout play you're being bombarded by fireballs and lasers, which you must destroy or avoid. Each hit on your ship destroys one of your shields (depending upon operator settings, you might start with nine). Any collision will also lose you a shield and the game ends when your ship runs out of shields and you get hit by anything. You do, however, gain an extra shield every time you blow up a Death Star.

Star Wars features a dramatic state-of-the-art color vector graphics system that produces surprisingly realistic effects. The sound track is laced with the familiar voices of Luke Skywalker, Obi Wan Kenobi, Darth Vader, and even R2D2. There's even seven musical themes played throughout the game including the Star Wars Theme, Ben's Theme and the Cantina Band.

The game play is fluid, smooth and fast, with a very simple first level, graduating to more difficult and challenging levels of play that, despite their repetition, do not become monotonous. In all, there are ten levels of play to be completed. And, as you

go on in the battle, subtle differences begin to appear such as catwalks stretching across the trench at varying heights which make maneuvering that much more precise. And, with the three opening levels from which to choose from, the nuances which are present keep Star Wars from seeming repetitive.

To sum up, Atari's new gem is a hybrid of all the science fiction games that have come out in the past few years. The voice simulator used in Star Trek and Sinistar is utilized to better effect in Star Wars. Three-dimensional effects that go back to games like Starhawk and more recently Sub-Roc 3-D and Buck Rogers are taken a step further here. Its vector graphics are superior to those of Cosmic Chasm, which had the best of any game up to now.

Star Wars simulates the subject matter better than Star Trek (which also utilized excellent vector graphics) and Buck Rogers (which wasn't so much of a simulation as it was a space game with a license slapped on). By recreating the action sequences and climax of the greatest science fiction movie ever made in first person it brings you as close to the story as watching the film did. Perhaps even closer. In fact, this is one of the best video games ever produced.

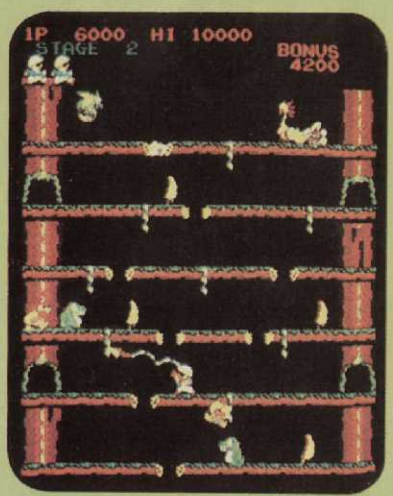
KONAMI'S

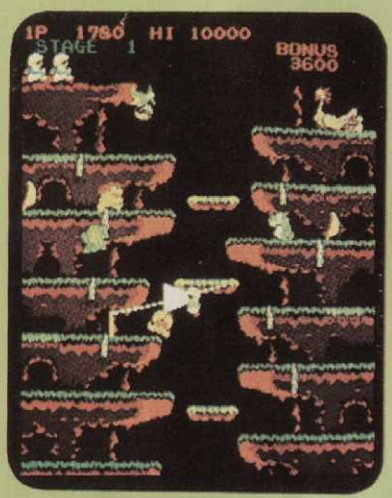
ROC'N ROPE

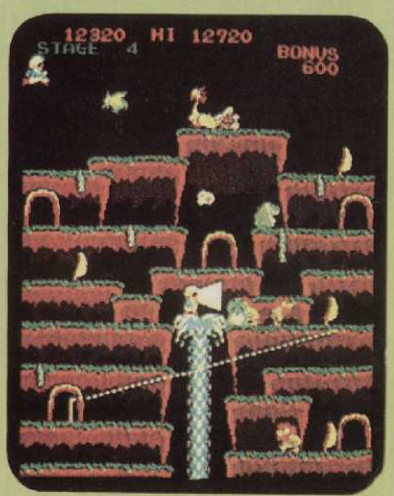
Konami is a Japanese company which has enjoyed great success licensing games to American companies. Their best-known efforts have been Gyruss, Scramble, Tutankham and Time Pilot. Now comes Roc 'N Rope, which will be available in a standard upright or as a conversion kit, manufactured by Kozuka Company Limited and marketed by Interlogic Inc. of Rosemont, Illinois.

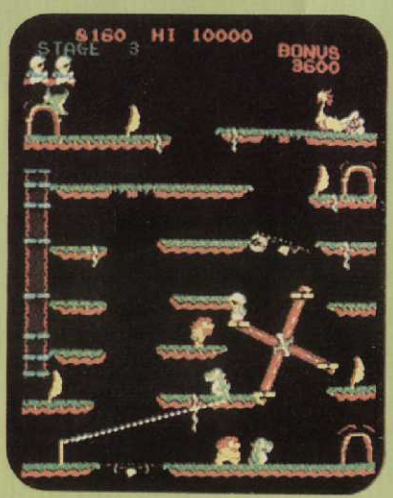
Rising up on two cliffs, separated in the middle, by an endless canyon, is the setting for this climbing game where your leading character, an explorer, must fend off dinosaurs, cavemen and big lizards in an attempt to catch the Roc—a bird of fortune.

The explorer has two abilities besides climbing which include the use of a "rope gun" and a "flash" button. His movement is controlled by a standard joystick while the object of the game is to capture the Roc. You do so by shooting the rope from one level to another, then climbing up the rope, blinding any cavemen or dinosaurs that get in your way, until you reach the top of the screen. Once you capture the Roc, you pick up any bonus time that's left on a game timer. Players can also pick up feathers for additional points, or gold eggs that speed up the explorer and enable him to destroy any enemies that he can touch. If any prehistoric enemies touch you, however, if time runs out, or you get hit by falling rocks, you lose one life.









Four board configurations present very different challenges for each scenario. The first screen features sixteen levels of ledges and a water geyser.

Roc 'N Rope's strong suit is its game play with lots of clever touches and subtleties in each maze. There are interesting and very different layouts as well as tricky unpredictable enemies. The strategies for going back and forth between openings in order to continually move ahead, are something that will take time to master, especially with the various obstacles and enemies around.

Roc 'N Rope's graphics and undistinguished sound track might not make it a readily exciting game. The dominant color theme is brown, and the rest of the tones attempt to give the game a natural look, but because the graphics aren't sharp, the screens look murky. However, there's something about the play that's captivating and appealing. In fact, any minor flaws in Roc 'N Rope don't prevent it from being a strong player's game, that presents unique challenges even in the overworked maze-game type format. ▲

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THE FLIPSIDE

Vintage Editions Under Glass

By Zelmo

What we have covered in the past few months, and why this column was originally conceived, is based on the fact that so much attention has been paid, by both manufacturers and players, to coin-op games other than conventional video. As a result you've read about such diverse creations as Chexx, Mazer Blazer and a number of pinball machines. Well, the latter category has managed to stage a mini-revival of sorts as witnessed by an increase in models being introduced.

In addition, what we're discovering is that many game rooms which never offered pinball machines before, having been content with only video, are, suddenly now, adding one or more flipper games to round out their array. Others, admittedly in the minority, who believed that pinball wasn't dead or that video games were the only answer for today's players, helped keep alive the interest by not abandoning flipper games and taking them out of operation.

The results and subsequent sequence of events have proven these individuals correct in their assessment, and more adherents are joining the ranks as coin-op continues to go through a transition phase where almost anything can be a viable endeavor. This is especially true if basic design elements are incorporated to achieve a balance between entertainment value and player gratification.

However, this isn't to suggest that video is any less strong or popular than it once was. Rather that there's room for other formats to share the spotlight. And manufacturers are recognizing that some previous efforts may well have an audience if they're updated and repackaged accordingly. In fact, the industry is rich enough in the history of what it has accomplished, to once again resurrect a theme or design which may never have been experienced by current players.

With pinball the renewed interest has brought back an emphasis that relies on returning to basics. The remaining manufacturers for this arcade medium seem to hold the common belief that less might well be more and old ideas can still be fundamentally fresh. So we're finding dressed up versions of machines from another era such as this month's Super Orbit and Royal Flush Deluxe from Gottlieb, the upcoming re-entry of Bally's Centaur in a different cabinet, as well as a growing number of other efforts which cover the spectrum.

There have been some original designs which are surfacing that although borrowing on older themes or influences, are still timely given present market conditions. And the end to the continued development doesn't appear to be in sight as pinball enjoys a modest rebirth. And *Video Games* remains committed to bringing you all the action as it unfolds, reporting trends in game design and new directions the coin-op industry might be heading toward in the months to come.

Regarding the scenario as it now stands in the arcades, players are, obviously, going to be finding a wider choice of equipment alternatives for their token or quarter. The net effect should serve to raise the general quality and appeal of future games to a degree that hasn't been experienced in a number of years. Any lingering complacency is now over in terms of producing product which improves from one model to the next. By and large, this hasn't been the case since video's surge into prominence. But many manufacturers are realizing that the old rules no longer apply and that the public wants more, whether it be video or some other coin-op form.

As for pinball, the changes have been apparent, although maybe not to the general playing audience. We're being offered standard fare which is predicated on sound principles that have always seemed to define pinball even through its days when innovation sometimes overshadowed all the other component parts that would-be wizards were looking for.

Possibly sensing this shift, D. Gottlieb & Company, long known for its role in the propagation of pinball, but more recently for its video standout Q*bert, has gone back to the vaults for some inspiration and returned with two vintage machines from another age. What they share is a straightforward application and integration of playfield features that, hopefully, will draw in the novice while still appealing to the hardcore player.

Gottlieb's ROYAL FLUSH DELUXE

What's important to realize in the beginning is that there are some pinball staples that I, and most of the players I've encountered over the years, look for in

any new flipper game. One of the primary features I'll notice is whether or not there are good shots to drop targets on a board. This is especially true if the design offers banks of three or more targets in a given location.

Admittedly, sheer numbers aren't enough to ensure playability and popularity of a game. But if the targets are placed in such a way that they're accessible from the flippers and can sustain interest because there's worthwhile value and point totals possible by completing a sequence, the game has a better than even chance to survive. Royal Flush Deluxe is such an effort.

Originally released back in 1976, this updated version has remained totally faithful, except for some changes in the scoring. The graphics, meanwhile, still borrow on what had once been a very popular coin-op theme: cards, for the basic artwork as well as the tieing in of features on the board.

The heart of Royal Flush Deluxe is a nine drop target bank, which stretches, at a slight angle, across the top of the field and allows for some very long shots from the bottom flippers. In addition, behind this setup are three stationary targets which will score additional points if the total bank hasn't been knocked down.

By design and necessity the playfield is wide open. There's a single thumper bumper up at the top right side, along with a joker target to the left and another lower down to the right. When the ball enters the board from the plunger, the possibility exists for it to hit this area or a left side featuring three color-keyed joker lanes as well as an outside roll-down lane. Add a few other targets in and the game remains fairly simplistic and austere in design compared to some recent machines. A left side target will score a green joker light, while the right side provides a lane for opening a bottom return gate when lit, as well as an interiorly set kick-out hole which will increase in value for each colored joker from 10,000 to 30,000 points up to a potential special.

However, Royal Flush Deluxe is really a game where everything is in the cards if you want to get anywhere. The hand you're dealt includes nine cards, tied into the drop targets, which provide an ace, two kings, three queens, two jacks and a ten of hearts. Whatever targets a player can hit down then determines the hand and any possible scoring if you happen to get some pairs, three of a kind, etc. And, even if you're not a card player, Gottlieb has taken out all the guessing by delineating the values on the playfield in terms of out-hole bonus scoring.

Get a pair of jacks or kings and it's 10,000 points. Make all four of these targets (or two pair) and the value is bumped up to 20,000 points. Three queens will bring in 30,000 points, while a full house of three queens and either two kings or two jacks will score 40,000 points. The 50,000 top point total can only be attained by hitting down the red (heart) targets for, appropriately enough, a *royal flush*. And if any of these combinations are made, without clearing the entire bank, the given points will be

awarded. So players might get up to 150,000 points once the ball has drained. Adding to the incentive and the repeat play of going after the target bank is the fact that scoring will be doubled if a player can complete the bank and begin a second so that the potential exists to gain a cool 600,000 points.

Although there might be some problems for direct access back up to the top left lanes behind the drop targets, Royal Flush Deluxe, for the most part, offers some nice shots from either side as well as an array of reverses and strategies for maximizing any shots. The jokers provide some deviation from the norm by building up the kick-out values, and the right side lane at midfield can result in a lower lane gate opening near the flippers for getting the ball back to the plunger and a rest period. However, the big satisfaction is going to be just laying back and hitting away at the drop targets which, importantly, have some rationale for existing by the fact that they hold the opportunity to gain cards in filling out a nine-card hand.

My biggest problem with Royal Flush Deluxe is that these physical and visual rewards (the tieing in of playfield features with the theme) are not adequately matched by the programming. And this is a concern for most Gottlieb machines. The company has yet to incorporate the option of a player earning more than one extra ball per turn, thus penalizing the better flipper ace as well as those who might get on a roll. This also holds true for any specials which might be earned and the lack of multiples.

It's unfortunate that this must still exist given the day and age we're in where sophisticated capabilities are possible for both pinball and video. And this reborn effort suffers for it in the long run, only because an extra digit on the scoring doesn't justify the loss of a more integrated design that won't maximize out the potential scoring limit on any given ball. Royal Flush Deluxe may represent a design direction for the near future of resurrecting older games from days gone by, but tastes and talents of players change, with this game's strongest suit probably not strong enough for the majority of today's players.

Gottlieb's SUPER ORBIT

Based on a very successful 1972 machine, which was released in a multiplayer format as well as an add-a-ball version for Europe, Super Orbit tends to spread its features around with the only constant being the graphic elements. Once again, as was the case with Royal Flush Deluxe, the only difference here between the original and the newer version is a new coat of paint and an added digit for bigger scoring displays and values.

Whether time has weathered well in terms of Super Orbit remains to be seen, since the memory of the past left this game in pretty good standing. The top offers three left side lanes, with the center totaling an extra 10,000 points, while there's an open right side area that leads

directly down to one of three widely placed thumper bumpers. Also at the right is a return gate for getting points and also a break in the action and a return to the plunger.

The major scoring areas are at midfield with a Gottlieb creation—the vari-target—on the left side, which features six different levels of scoring values as well as the potential of gaining a special. Meanwhile on the right is a single roll-down lane flanking a lone, almost freestanding spinner. The spinner is tied into any lit thumper bumpers, which will step up the sequence of lights on the playfield in order to complete a ten-step 'orbit' and, thus, increase the out-hole bonus values by increments of 10,000 points up to a top limit of 100,000 points.

Another nice touch is the addition of an open gate feature worked into a switch on the interior lane leading down to the left flipper. Get the ball in here and over at the right side a gate will open allowing a ball to be saved back to the plunger rather than lost down the drain. Otherwise, Super Orbit is just a straightaway shooter's game with good access to most features from either flipper, as well as reverses, and some precision aiming necessary to make a strong spinner shot or vari-target hit.

The balance from top to bottom and side to side is more than enough to sustain the building up of a strategy which can remain consistent from time to time, but there are problems with the scoring which lessen the overall impact of the game in today's market. Double bonus is 'given' rather than earned by players and the maximum out-hole bonus isn't that difficult to get to, leaving you with not much else to go for, except for collecting some point totals via that top right side gate. In essence players are forced to make only two real shots, and how satisfying that may be after you've done it a few dozen times is an issue that can't be overlooked.

For its time, Super Orbit was a classic game, but Gottlieb might do better for itself and players by looking elsewhere in their archives for inspiration. Lord knows they had some incredible flipper games in the late Sixties and throughout the Seventies which might prove to offer more in the way of pure pinball play, but time will tell if any will be forthcoming. As it stands, we have credible efforts that do enforce the aspects of basic pinball sans the frills and trappings of extra balls, multiple levels and all the rest. ▲

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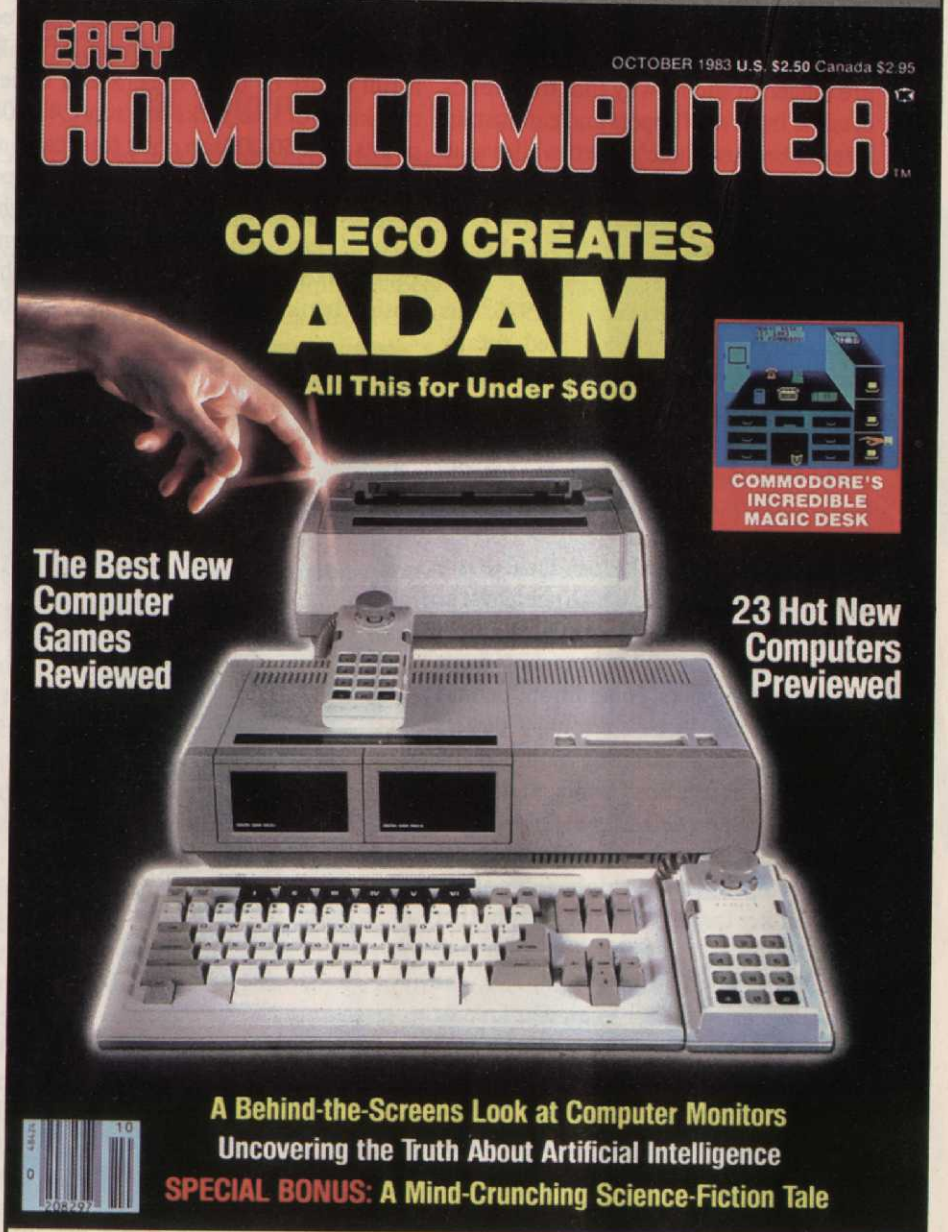

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SOFT SPOT

Getting An Eyefull of the Latest Home Carts

By Perry Greenberg and Dan Persons

With video game companies going out of business and the massive shake-up in the home computer market, almost everyone is concerned about what the future holds. One of the major questions is whether the Atari VCS can still be a viable system with all the technological leap-frogging going on, and for how much longer. Recently Coleco unveiled its Adam computer, sending the competition back to the drawing boards. In addition, Commodore released commercials implying that children will turn into game playing zombies instead of computer whizzes ready for college and the 21st century, if a game system is purchased rather than a keyboard-equipped home computer. It's a question of panic and misinformation getting the best of everyone and no one seeing the forest for the trees.

Video games, like music, movies and TV, are a form of entertainment. And as in any form of entertainment, quality is the name of the game. Whether you're playing a video game on a $5000 personal computer or a $100 Atari VCS, a good game is a good game and will be appreciated by those who have an insatiable appetite for this type of entertainment.

Here, as we go into our second year at *Video Games,* there are still companies out there busy designing a variety of exciting, challenging and visually stunning games for the old VCS as well as other second and third generation systems and the most popular personal computer models.

Atari, for example, is about to unleash a host of home versions based on some of the best of the recent arcade games. And other software manufacturers are in hot pursuit to garner their corner of the market. We're seeing a variety of titles based on themes that cover real-life activities as well as feature films. There have been some different directions taken to enhance play appeal and graphics leading optimists to believe that the fall may well be the best of times for home game players.

So, as we approach the autumn months and our industry matures with the inevitable accompanying growing pains, we do see an improvement in games covering most areas of design. Auto racing games for those that like life in the fast lane are being created by Atari and Activision with astonishing play and graphics. Coleco still impresses its hardware owners with games modeled after mildly successful arcade games that transfer wonderfully to their system. So whether your favorite form of play involves traveling along the ground at breathtaking speeds flying supersonically in space, or battling underwater with cautious and careful well-timed movements, there are any number of excellent games to be had for those of us that still relish the unique joys of active video entertainment.

BURGERTIME
(Intellivision)

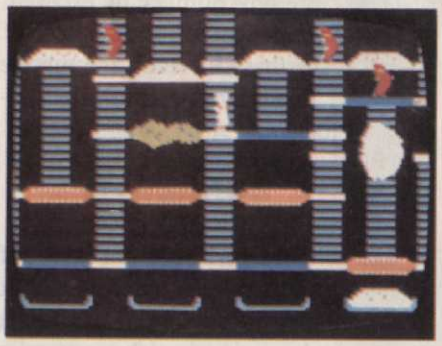
BurgerTime was one of those games that just didn't generate the following it deserved in the arcades when it was first released by Data East and then licensed by Bally/Midway. It was a clever, entertaining maze chase with the kind of excellent sound effects, graphics and playability that should have insured it becoming a major hit. I suspect the lack of a substantial following was due to the theme of the game. After all, who is going to get excited about a game where you're a miniature chef, trying to elude garnishes for a hamburger you're building. And let's face it, no one is doing cartwheels after successfully putting together a Big Mac; you could do that for real and earn $3.35 an hour. But for those of us who've gotten over our initial prejudices, BurgerTime was a true delight. The same holds true for Mattel's version for the Intellivision system.

The idea of the game is to build hamburgers from the various ingredients that make up the modern day burger. You control your chef and travel over

these components, dropping one on the other, until you complete a hamburger. When four are completed, you go on to the next maze of planks and ladders. But as you go about building a better burger, you're also being pursued by a host of nasties that include lethal hot dogs, pickles and fried eggs. If one of these makes contact with your chef he topples over and it's back to the old frying pan.

You can use your adversaries to your advantage, however, by either knocking burger ingredients on top of them to score 100 points for each nasty clobbered. Giving one a ride on a falling burger scores 500 points and increases to 1,000 points for two; 2,000 points for three; and 5,000 points for four. Get five and you'll earn 8,000 points. Gobbling one of the pinch of pepper prizes (ice cream, coffee, ketchup or french fries) gives you an additional 500 points.

As in any chase and pursuit maze game, reflexes and the ability to form



strategies are your keys to success. A suggestion is to try to drop ingredients on nasties when building burgers or, better still, drop burger parts while nasties are on them for extra points. The difference here from most maze-chase games is that you can't momentarily turn the tables on your pursuers, but your chef isn't entirely at the mercy of these vindictive heart burners. He does come equipped with a pepper shaker that, when activated by pushing a fire button, temporarily stuns nearby nasties.

BurgerTime definitely will not appeal to everyone, especially those into fierce combat games, but it does have its moments and might well be an appetizing change of pace that's fun and challenging and, best of all, *non-fattening.* —*P.G.*

SPACE PANIC

(ColecoVision)

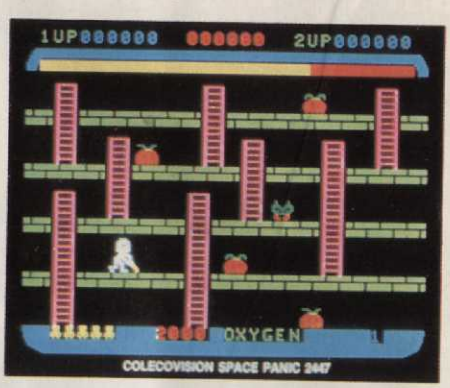
When Universal released it for the arcades there wasn't too much excitement or anticipation, but now **Space Panic** gets a new lease on life. The object of the game is to guide your spaceman, who has a limited supply of oxygen, around a multi-tiered maze of ladders and girders. Pursuing your canny astronaut are several space creatures who are intent on sending him into the great void with their lethal touch. What makes this game so unique is the way your spaceman must repel these attacks. He doesn't blast them, or even zap them, but instead must dig holes in the girders with his electronic shovel. This momentarily traps his adversaries allowing your spaceman a brief time to clobber the alien with the shovel until he falls through the hole and crashes to the floor below.

As the game progresses, smarter and more resilient aliens will pursue you. A Boss, which is a green-colored alien must fall through two floors to be eliminated, while a blue-colored Don must fall through three floors to suffer the same well-deserved fate.

The idea of the game is to develop patterns and strategies that will eliminate all the aliens before your oxygen runs out. The more floors your alien falls through the more points you're awarded. The object, then, should be to dig as many holes as you can, preferably under one another, so that when you knock a trapped alien through a floor he'll tumble down additional floors thus scoring more points. Ideally your strategy should be to time their falls so they'll land on top of an alien below, thus killing two birds with one stone. Another successful strategy is to use the holes as a delaying tactic. Even the most accomplished players won't necessarily pounce on an alien as soon as he's trapped, but will use the hole to temporarily delay an approaching attacker.

As in most chase-and-clobber games, evasion is as important as destruction so stay close to the ladders to insure an escape route. In fact, try digging holes when you're partially perched on a ladder and then pounce on the alien. Try also to create islands around your spaceman so you won't be ambushed by attacking aliens. An additional point to be aware of, is that your spaceman can fall to a lower floor without getting killed. But digging is the key to success, so whenever possible make a hole in the girders and move on, before pouncing upon the aliens.

Space Panic is a lively, relentless multiple-tier chase that pre-dated the Donkey Kong games which are similar



in concept except here you can't jump. Had a panic-stricken spaceman been given this additional property, who knows, Space Panic might have been the mega-hit its simian cousin became. —*P.G.*

SKY SKIPPER

(Parker Brothers)

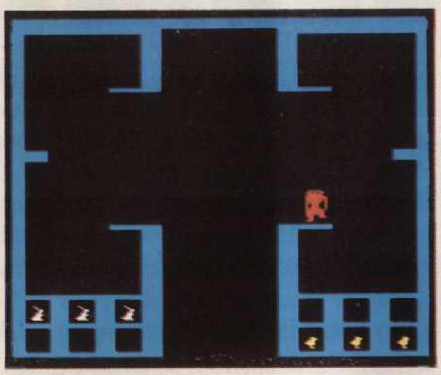
Sky Skipper is a charming flying rescue game by Parker Brothers, where the object is to rescue a Noah's Ark assortment of animals that have been caged by mischievous gorillas. You must pilot your little biplane of mercy through a scrolling maze and rescue these cute little creatures by first dropping (via the red button) a bomb on a gorilla that momentarily knocks him on his duff which in turn opens the cages. During his brief period of incapacitation you must fly low enough without touching any part of the maze and graze the released animals thus affecting their rescue. You must move quickly since the gorilla will eventually leap back on his feet at which time the cages are locked.

There are four cell blocks and two gorillas per maze. Each gorilla can open two sets of cages. You can lose a plane by bumping into the walls of the maze, into a gorilla, or into one of a trio of clouds that float across the maze at the game's higher skill levels. Since running out of fuel will also cost you a life, you have to keep an eye on your fuel gauge, located at the bottom of the screen. The only way to replenish your tanks is to pick up one of each type of animal: one duck, one rabbit, one cat and one turtle. Complete the first maze and you're moved to a second, slightly more complex maze. Complete the second maze and you are

moved back to the first maze at a higher difficulty level, and so on. The game ends when you lose four airplanes.

Skillful and cautious flying is the key to success in Sky Skipper. Don't move too quickly even if it means you'll miss out before the gorilla rights himself. Instead just go back and bop him again. You'll fly faster to your destination if you point your plane vertically, but in trying to level off you'll invariably crash before rescuing. Your best bet is to glide in a horizontal position when rescuing, thus avoiding the dangerous maneuver of righting yourself when you reach the animals.

Sky Skipper is a game that first appears to appeal only to young children.



Its simple child-like graphics and non-violent play might at first alienate older gamers. But if you give Sky Skipper a whirl you find it to be a skillful test of strategy and eye-hand coordination that will not only delight the young players but challenge the older veterans of many bloody video game battles. —*P.G.*

ENDURO
(Activision)

The popularity of the simulated racing game seems endless. Way before video games became part of the lexicon, there were driving games in penny arcades along-side shooting galleries and skeeball. With the advent of the microprocessor the games became more sophisticated, taking quantum leaps in graphic displays and sound effects culminating with Atari's incredible Pole Position.

Home games have fared considerably well, too. Atari's Night Driver was a terrific home version cleverly incorporating the paddle controllers as a steering wheel, thus avoiding the necessity of an expensive driving module as needed in ColecoVision's Turbo. Up to now, however, Turbo has been the preeminent driving game due to superior graphics, although playability was far from perfect, with scenes shifting too abruptly for many. **Enduro** by Activision now surpasses Turbo as one of the best auto racing games ever devised for home play.

This terrific game for the Atari VCS laps every other racing game outside the arcade. From a perspective similar to that of Pole Position, you start a race that begins and ends at sunrise as you attempt to pass hundreds of cars within a 24 hour period to qualify for yet another day of racing. There are basically five screens. The first, in this test of endurance and driving skill, begins at dawn with a bright sky and mountains on the horizon as you speed along a winding road. Holding down the red fire button accelerates your car until you reach maximum speed, letting go will decelerate your car and pulling back on the stick will brake it. As you continue to pass vehicle after vehicle you must avoid collisions and touching the road's shoulders. These two major obstacles will cause you to lose time but neither are destructive. As you proceed along, you reach the next screen which is a snow covered road where you actually lose steering response as you would in real life. Soon you're back on a dry highway where the orange light of a sunset lets you know nightfall is around the bend. Now your test is a more difficult setting of night driving, where cars are represented by pairs of red glowing tail-lights. Finally you reach the last and most difficult screen: a fog drenched road where your visibility is severely limited, and split second evasive action is needed as the approaching taillights of opposing cars appear out of nowhere. You must pass all the cars indicated at the bottom of the screen to qualify for another day of racing where the amount of cars increases from two to three hundred.

Enduro is a game of reflexes and stamina. Your strategy is to drive as fast as possible without hitting anything. The graphics are superb as you speed along this endless 3-D roadway. As you progress from day to day, not only must you pass more cars, but they move faster and spread across the road more treacherously. Although the number of cars you must pass stays at three hundred after the first day, the game does get progressively difficult as these additional cars unfold on a more treacherous roadway. Your score is indicated on the bottom of the screen in miles you've driven. When you fail to pass all the cars you're

supposed to on a single day the game ends.

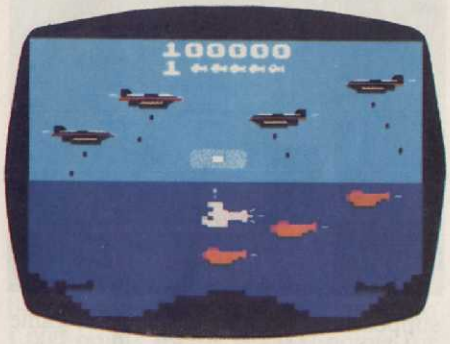
Activision has done a remarkable job in bringing the first person 3-D racing game into the home, especially when you consider the so-called limitations of the Atari VCS. The game presents the armchair racer with incredible graphics and sound effects and really lives up to its name, for endurance is the true test in Enduro. —*P.G.*

POLARIS
(Tigervision)

Tigervision has performed the most unique trick in video game history: they've actually improved on an arcade-inspired game. **Polaris** one of the earliest sea battle games to hit the arcades was a moderate success for Taito but by today's standards it could still be considered primitive. It consisted of one screen with action involving a joystick controlled submarine being attacked from the air by high flying bombers dropping depth charges. Your Polaris submarine was armed with only sea-to-air missiles that were launched with a red fire button. The joystick was used to maneuver the sub and dodge the depth charges while avoiding a collison with enemy subs that patrol the area. After the first wave of enemy bombers, you're attacked by a far deadlier dive bomber that is a highly maneuverable, difficult to hit adversary. At this point, the dive bomber drops torpedoes from the sky that rapidly move in for the kill once they cut through the surface. As the game progresses the action becomes increasingly harder as you face more and more bombers as well as enemy subs.

In this terrific home adaptation you're actually given an entirely different screen to contend with after

you've successfully knocked out all your sky attackers. The second screen has you maneuvering through a dangerous channel where you must negotiate the serpentine deadly rocks and destroy, or elude, lethal underwater mines guarding the



treacherous bottlenecks of this waterway. Once you've successfully traversed the channel you move on to face more bombers and subs in the first screen.

Timing and reflexes are the keys to success in Polaris. Bombers are worth 100 to 300 points depending on their altitude when hit. Enemy subs, which can only be destroyed by maneuvering under them, are also worth 100 to 300 points depending on their depth. Dive bombers which are the most elusive and formidable of all your attackers are worth 1,000 points and channel mines are worth 300 each.

Polaris offers some unique fire power, since in the first screen you can only fire missiles, but in the second, which is a scrolling screen, your fire button activates torpedoes to destroy the mines. Also, in the first screen you can only fire a succeeding missile after your first one either goes off the screen or hits something. However, in the second screen pressing the red button will cancel the torpedo in progress and fire again.

I would have preferred both horizontal and vertical fire (or missile and torpedo fire) in the first screen so you could knock out subs without having to move dangerously under them. But since you can't it's still a good idea to try to knock them out first, because they're dangerous obstacles when you're dodging depth charges and dive bombing torpedoes. Timing your shots is the only way you'll knock out planes, so get a feel for when to release missiles. Also, stay close to the surface when battling the dive bomber and wait until he makes his run at about surface level to knock him out of the skies. When maneuvering through the channel pull your joystick back and journey slowly: only speed up when trying to avoid mines you've failed to destroy. With all this in mind remember that the key to knocking out mines is *not* to fire repeatedly, but, rather, to time your shots when you think you're on target.

Polaris succeeds by offering the player a challenging, exciting game that employs the submarine warfare scenario I've found so intriguing ever since I saw Clark Gable and Burt Lancaster in *Run Silent, Run Deep*. Here you don't get Clark and Burt but you do get a superb game that's actually two good games in one and probably the best of the submarine warfare carts yet for the Atari VCS. —*P.G.*

SOLAR FOX
(CBS Video Games)

Solar Fox: sounds like vicious aliens firing deadly laser cannons, a desperate struggle for the survival of a galaxy and you, the lone space knight, struggling to save humanity from the clutches of the bloodthirsty beasts. All that excitement is in this one or two-player game for the Atari 2600, right?

True, there are laser cannons in Solar Fox. There's also a spaceship that you pilot with your joystick. But what kind of galaxy is this? Actually, it's loaded with little squares that you scoop up for points by moving your spaceship up and down, left and right, while avoiding the fire of the twin laser cannons that slide back and forth at the top and the bottom of the screen.

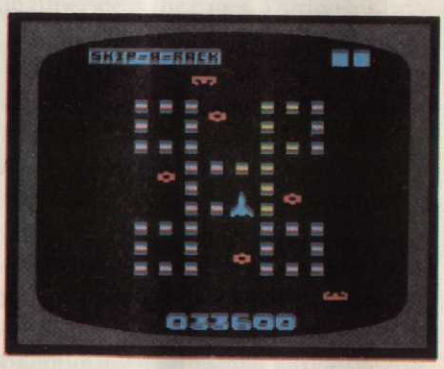
In this game the fire button serves as a speed control, either speeding the ship up or slowing it down, depending on which option you choose. Clear out a "rack" of squares, and you're rewarded with a new one. There are six racks in all, each with its own configuration of squares. The patterns vary from donuts to arrowheads to clover leafs. Complete a rack before a shrinking bar marked "SKIP-A-RACK" disappears, and you're awarded the following rack's points without actually having to play it.

What Solar Fox amounts to is a sort of galactic Pac-Man, which is fitting considering that CBS licensed the game from Bally/Midway. It's a nice no-frills type of effort, where you have the choice of two types of opponents. One enemy is super-aggressive, with the ability to fire up to eight laser volleys at a time, according to my count. The remaining enemy has only alternating laser blasts and only one volley permitted on screen at a time. In neither case do the cannons appear to track your ship; they just fire at random.

The difficulty switches allow you to have either a fast ship, with the action button used to slow it down, or a slow ship, with the action button used to speed it up. Since there's no way of taking advantage of the skip-a-rack feature at the slow speed, the suggestion here is to throw caution to the solar wind and go full tilt. Even with the ship moving at its fastest speed, a person with reasonably good reflexes should be able to dodge the hit-or-miss firing pattern of the laser cannons.

The graphics are as ordinary, as are the sound effects. What's more dismaying, though, is that there appears to be no increase in difficulty after one clears out the sixth rack. The game just goes back to the first rack at the same skill level of an average player. A slightly better player could probably keep this game going indefinitely. However, I like my games to maintain some degree of difficulty—and here there's just no fun with something that can be beaten so easily.

Nevertheless, Solar Fox does have some merits. The random firing pattern of the cannons prevents a player from coming up with strategies too easily. Kept at the higher difficulty setting, Solar Fox is a fairly challenging test of



eye-hand coordination. How long it will remain a challenge will depend on the person playing it. —*D.P.*

NO ESCAPE!
(Imagic)

Ancient Greece: cradle of civilization, home of great philosophers, birthplace of new-wave music. Okay, I know that those of you who have studied classic literature never saw any mention of Elvis

Costello or the Plasmatics in Homer's *Odyssey*. Nevertheless, Imagic has added a new-wave soundtrack to **No Escape!**, their Atari 2600 translation of the story of Jason and the Golden Fleece.

According to Imagic's rewrite of Greek mythology, the gods of Olympus, angered at Jason's attempt to steal the Golden Fleece, have trapped Jason in the Temple of Aphrodite. Over Jason's head is a rock sextette that goes by the

name of the Furies. These musicians amuse themselves by chasing after Jason who is far from being defenseless. He has rocks which he can throw to the top of the temple in order to dislodge bricks from the ceiling. The object of this game is to dislodge the bricks in such a manner that they land on the heads of the Furies, eliminating them one at a time and turning the sextette into a quintette until the very last solo musician is forced to take five.

You use the joystick to move Jason as he remains at the bottom of the screen. The action button causes Jason to throw stones and if he's moving at this point, the stone will curve in the direction that he is facing. But if he stands still, the stone travels a straight line up to the ceiling of the temple. Jason has to be careful, since a Fury hit directly with a stone will multiply. Jason starts off with four lives and gains an extra life for each wave he survives. Being hit with a brick or with the Furies' fire will cost Jason a life.

On the surface, although totally different games, Imagic seems to have taken the visual and aural elements that made Demon Attack such an exciting game to play, improved them, and introduced them into a different game concept.The neon-bright color schemes, the wide variety of antagonists, the paranoia inducing background music are all here, but with a level of sophistication that puts Demon Attack to shame. The Furies go through some astounding costume changes, each with its own new-wave theme. There are soldiers, skeletons, goofy-looking griffins, and magnificent golden centaurs. While the standard strategy of the Furies is to form a weaving, serpentine-like column from the bottom of the screen to the top, each wave's attack plan can be quite different. In one wave, the Furies fire becomes more accurate with every stone that Jason hurls. Another wave has Furies that deliberately try to run into Jason's stones in order to multiply.

No Escape! has eight game variations, including four two-player games, and the option of choosing whether Jason receives a bonus life for merely surviving a wave or for surviving a wave without being hit. Fans of Demon Attack, who are looking for the next logical step in dodge-and-shoot games, would do well to check out No Escape! You'll feel right at home with the graphics and sound, while the game play should keep you busy tossing rocks for quite a while.

—D.P.

VANGUARD

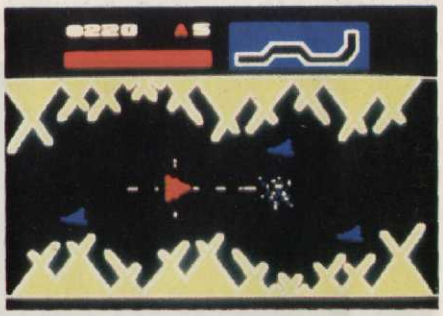
(Atari)

Vanguard, the military term describing the troops that lead an attack, is a terrific name for a game involving non-stop carnage. Originally introduced to the arcades from Centuri in 1981, it's similar to Scramble in that you move your highly destructive aircraft along a maze where you must kill, or be killed, without crashing into the top or bottom of the tunnels. The object is to make it to the end of the tunnel depicted on a radar screen above the action.

The screen lets you know how far you've gotten on your journey and when you've reached your ultimate objective, the Gond. The graphics of this licensed effort are stunning as you control your ship along these dangerous passageways. Your ship has the nice advantage of being able to fire in four directions; there are also energy pods to be found along the way. When you pass through one, your ship becomes indestructible for a short time. You can't fire but you can knock off a number of enemies by colliding with them.

As in most games for the 5200, you're given a choice of difficulties, but here you're also given a choice between rapid or single shot fire. Unless there is something seriously wrong with your mental facilities, or you just love pressing that excruciatingly uncomfortable fire button and enjoy blisters on your thumb, I suggest you stay on rapid fire.

Vanguard is blessed with a seemingly endless maze with six different screens. The horizontal screens are the styx and stripe screens where you must zip along, horizontally shooting and dodging opposing ships until you get to the first vertical maze called the Rainbow zone. In this area you must first move upward, dodging and shooting lethal balloons. You can direct your fire with the joystick but, unfortunately, you also move closer to your adversary. The Rainbow zone is an extremely difficult area where the loss of a ship is imminent, yet paradoxically you play this gut wrenching segment accompanied by of all things, calliope music!



After making it through this, you repeat either a styx or stripe zone until you finally reach the Bleak zone, where you must battle Kelmus Snakes and spear-shaped Ramada ships. For an additional 1,090 points you can dock with the Snakes three times after which they become lethal. Ultimately you arrive at the city of mystery where you'll encounter the Gond, which is protected by two barriers moving in opposite directions. You must keep firing until you shoot through an opening between both barriers to destroy the Gond. This is, however, easier said than done, since these openings are few and far between. And while you're trying to find an opening you're being attacked by missiles. At the same time, moving barriers are creeping up while you're hovering and firing.

Although Vanguard offers multiple screens, superior graphics and four-way directional fire power, it's a game with an all too familiar theme. Unless you're totally removed from video games, you've seen this type of action before. Vanguard is a good Scramble derivative: the only problem is that its time has come and gone.

—P.G.

COMPUTER CORNER

COLECO KEYBOARD PREDICTIONS
A Look Back and Ahead

By Mark Brownstein

Photo by Michael Sullivan

In our June issue, *Video Games* predicted what the top-secret Coleco computer keyboard would look and act like. While the Mattel and Atari add-ons were pretty much common knowledge, the Odyssey Command Center has since been shelved, and there are definite problems in bringing the Astrocade keyboard to market. All the units, at least, had some announced design features. Aside from Coleco's statement that they would have an "under $150" computer add-on, this was all that was publicly (or privately) announced by Coleco.

On that basis, our guess was pretty close. True to Coleco's claims, they have, indeed, come up with a blockbuster computer system. The system introduced at the Summer CES and called simply ADAM, is a remarkable piece of computer design. It is an under $600 computer, with features placing it far ahead of most, if not all, of the competition (up to and including the Apple). When you are talking about computers, Coleco's announced price is extraordinarily low considering what you get. And what you get is an 80K computer, with a built-in basic language (SmartBasic), which also allows you to use most of the Apple source-code programs; a high-speed, high density data storage device which stores *more* information than a disk drive but costs far less; and a *letter-quality* daisy wheel printer. (A slightly faster printer, alone, sells for more money than the complete ADAM system). This system also allows you to play ColecoVision games and use its available expansions. Buying an ADAM will let you do *everything*. However, if you already own a ColecoVision, you're still in business: Coleco will sell an ADAM which connects to your ColecoVision and gives you all the features of ADAM, at an appropriate reduction in cost. Either way, you win.

We predicted last May that the system would sell for $150, would have a full-sized, full-stroke typewriter style keyboard (which ADAM has), and a thermal printer (for under $150, letter quality wouldn't have been possible at that low price). We had our doubts about a separate cassette recorder (which would have kept us within that price range) because the SuperGame module was an impending reality which would have made rapid, low-cost storage possible.

The ADAM storage device is, apparently, a Coleco-developed modification of the SuperGame technology. Although unwilling (or unable) to release specifics about *how* the new ADAM storage works, it utilizes "DataPacks" which can store up to 500K bytes of rapidly accessible information (more than four times the capacity of most floppy disks). We suspect that the DataPack may be a redesign of the SuperGame "floppy wafer" system, with a wider tape and multitrack recording and indexing.

The ADAM is designed to function as a World Processor; making it an excellent alternative to an electric (or electronic) typewriter. Because the ADAM and ColecoVision machines utilize a particular integrated circuit, our prediction of a 24x32 character display was very safe. Coleco gets around the smaller than full-page display by providing a wrap-around on the screen. What you see on the TV screen *isn't* exactly what you get on paper. However, since in most uses, typing or word processing takes up the majority of the time *inputting* (putting the letters into the computer) and only a minor part of the time printing it out, not having a full screen display really isn't a problem.

On the whole, our preditions were right on target in terms of the display characteristics, and the types of peripherals that would be included in the system. We greatly underestimated (due to a lower target price) how excellent the entire unit would actually be. ADAM has so far an unexcelled memory (expandable to 144K), a unique, highly useful data storage device (with provisions for expansion to a dual drive system), and a true letter quality printer, with replaceable print wheels and easily purchased ribbon cartridges. We were right, but did we underestimate Coleco's ingenuity!

SYSTEMS ANALYSIS
Overview of the Latest Computer Models

By Mark Brownstein

Over the past nine months or so, the market has changed dramatically. What was once a nice, comfortable, profitable business quickly degraded into a catfight. The VIC-20 dropped from its original $300 price to around $135, and recently has been seen for *under* $80 (a true computer for less money than an Atari VCS). Atari followed suit with a net price of around $75 for the Atari 400, and Texas Instruments has flooded the market (claiming tremendous losses as a result) at a net price of about $100.

Of the three, the only manufacture which hasn't lost money (or at least hasn't complained about it) is Commodore, the cost-cutting leader, which is still making a profit from the Commodore 64, which lists at $600, sold for a net of around $300, and has been recently on discounters' shelves at around $199. Industry sources contend that, at a wholesale of $199 (discounters often sell at cost so that they can make profits on software), Commodore still makes a profit of about $80-$90 per unit.

As if this price-cutting, highly competitive situation wasn't a bad enough omen, it seems as if firms were waiting in line to hop into the competitive fray. The bottom line, of course, is that you, the consumer, can pick up a computer (maybe even a useful system) at an unprecedented low price. But it will be considerably more difficult to know that you picked up the right computer, one with adequate software support, one with a manufacturer who will stand behind it in case of any problems. For now, let it be known that the VIC-20 and Atari 400, 800 and 1200XL are on their way out (Commodore has an improved machine, or may put the 64 into the VIC 20's market position; Atari has introduced a new line of computers which accept existing software.

At the Consumer Electronics Show this June, manufacturers were out in full

force displaying their new line of home computers. In this article we'll try to give you some information about some of the most interesting developments and announcements to further amplify what we reported last issue "Electrifying Sights," page 34, September *Video Games.*

ADAM by Coleco

Undoubtedly, the computer which was the most eagerly awaited, proved to be worth the wait, and will probably get the most attention, is Coleco's ADAM computer. Is the ADAM that good? It looks like it.

Unlike all the other computers on the market or on exhibit at the show, ADAM is sold only as a complete system. What you get for your money is an 80K RAM computer (more memory than any basic Commodore, Atari, Apple, IBM-PC, or other major computers) capable of expansion to 144K RAM, a full sized, full stroke, typewriter style keyboard, a newly developed data storage system capable of storing 500K bytes on a Data pack (four times the capacity of most diskettes, about 125 single-spaced typed pages) and, most impressive of all, a letter quality daisy wheel printer.

As part of an under $600 package, the printer is a marvel. Instead of printing the sometimes barely legible dot matrix characters, the ADAM printer uses the same daisy wheel that most highly priced word processors utilize (a daisy wheel is like a wheel with many spokes—each spoke has a letter which is printed by striking it with a print hammer and leaving the impression through a ribbon). The printer is about half as fast as the $700 Brother and Smith Corona daisy wheel printers, but still exceeds the speed of the fastest typist. Daisy wheels are interchangeable, so that you can change type styles whenever you want to.

The speed of the printer shouldn't be much of a problem, since data entry and correction is the more time consuming of the processes involved in word processing. Editing from hard copy on paper is, from my experience, the easiest way to edit a manuscript, so that the smaller-than-page-width video display isn't as big a problem as it may seem at first glance.

As for the display characteristics, you can only see a display which is 32 characters wide (less than half the width of the standard 80 character page). Coleco, however, has developed a "scrolling" system which is supposed to make it easy to see what's on each line of text.

The computing language ADAM will use is a version of the microsoft basic (SmartBasic), which preserves Apple source codes. In effect, if you add a disk drive to ADAM, you should be able to use Apple written basic programs on ADAM, and vice versa. Being CP/M compatible, the ADAM will also be able to use the thousands of applications programs already written in that language, although you may need to add a disk drive to get many of them.

All in all, it seems that ADAM is the system to watch. Coleco claimed before the announcement of ADAM that it may do to the computer business what ColecoVision did to the video game business. It looks like they probably already have.

Sonic by Unitronics

Serendipity is a term which relates to a simultaneous, independent invention, idea, or discovery. Perhaps since Coleco doesn't manufacture its own integrated circuitry, anyone could, conceivably, put the same components together in much the same way that Coleco did. Well, it looks as if Unitronics has done exactly that.

The new computer from Unitronics boasts an 80K memory (this figure was raised to 84K to one-up Coleco at a hastily called press conference). The computer is fully Coleco-compatible, meaning that it can play all the ColecoVision games and will probably also be able to play SuperGame Wafers when they are available. As with the ADAM, the system is Apple II compatible, giving owners the flexibility of using programs written for the Apple on the Sonic, and Sonic programs on the Apple. The system comes with a Frogger game tape, Microsoft Basic, Magic Windo-1 Word Processor program and a blank data wafer.

The Sonic can also be made CP/M compatible, allowing it to use the extensive library of CP/M programs which are readily available. Unlike ADAM, the Sonic uses the reportedly inferior (if that's true) string floppy system, which is built into the computer. Stringy floppys (which we reported on in our June issue) are far better than cassette tapes for storage and playback, cost about $4 each, and can store up to 128K bytes of data.

Also unlike ADAM, the Sonic computer doesn't come with a printer. At around $400, the system seems like a pretty good buy, although it's extremely unlikely that the company can come out with a letter quality, ADAM-type printer for under $200. Therefore, if you feel you need a letter quality printer (for reports, term papers, financial statements, recipes, etc.), the ADAM is probably a better choice at this time.

Not content with merely developing a powerful computer, Unitronics has licensed many of the better games, educational, and utility programs for conversion to their stringy floppy drives. Such firms as Eduware, Spinnaker, Epyx, Big Five, Sierra On-Line, and Broderbund have all licensed some of their best titles for the system (and you can't play the wafers on an ADAM). The games should run between $20 and $25, and should be available by the time you read this.

Unitronics also has a 48K RAM version of their computer which can be added to your ColecoVision. Using an Atari VCS interface (under $50), would allow you to use the 48K model on your VCS, which is something that ADAM won't do. (Why you would want to add a $400 computer to your VCS is beyond me,

Mattel's new Aquarius II features a full line-up of peripherals.

but if you *want* to add one, now you can.)

Aquarius II by Mattel

Smarting from the poor showing that the original Aquarius made, Mattel demonstrated the new, improved, Aquarius II. It really has been improved. The principle weakness of the original Aquarius was its virtually useless keyboard. The Aquarius II now has a full-sized keyboard, including a space bar where it belongs. The system is also reported to have additional memory, and special features. However, at the time this article was prepared, the official word from Mattel was that they are holding all announcements about Aquarius II in preparation for a major announcement.

Atari XL Series by Atari

We already mentioned that the Atari 400, 800 and 1200XL be discontinued. Their replacements are the 600XL, 800XL, 1400XL and 1450XLD computers. The computers cover a range which is roughly comparable to the earlier models.

The 600XL is an improvement over the 400, with a full-stroke keyboard, 4 sound channels, 16K ROM (expandable to 64K), and 24K ROM with built-in Basic language. The Atari machines continue to be among the strongest graphically, with the capability of generating 256 colors (compared to as few as 8 in some other systems). In all the new Atari computers, there is the built-in capability of using any of the existing cartridges, and with expanded memory, all the disk drive software available.

The 800XL includes all the major features of the 600XL. Cosmetically, it looks something like a 5200 with keys. And unlike the older model 800, there is no cartridge door cover, and only a single cartridge slot (since Atari didn't really devise many uses for the right cartridge slot, anyway). The 800XL provides 64K ROM and the same high resolution of the 600XL (320 x 192) as the other new Atari computers.

The 1400XL is an improved 800XL featuring a built-in direct connect modem, which spares you the expense of an add-on modem, and gives you access to the numerous teletext services. Speech is also built into the 1400XL, making the *possibility* of talking games a strong *probability*. Memory and display characteristics match those of the 800XL.

The 1400XLD is basically a 1400XL with a 5¼" disk drive stuck on top. Built into the top of the unit is a disk storage area (try it to make sure it won't erase while it stores), which can also be used to house a second disk drive. The 1400XL and 1450XLD have downward compatibility, meaning that they can use all the programs for these two top-of-the-line units, which take advantage of voice, and will probably not be compatible with any of the other Atari models.

Atari also introduced its long awaited computer keyboard for the VCS, with a new name: The Graduate. It's an under $90 unit which fits atop the 2600, provides 8K RAM and 16K ROM. An interface for connection to the peripherals, along with an added 8K RAM should sell for around $80.

The Graduate can be upgraded to a full system (although we wonder why), complete with a 40 column thermal printer, a 300 baud modem, 16K expansion, cassette recorder, and, most interesting of all, a 128K wafer drive module for suggested list of $80. For a total price of about $440, a VCS owner can have a complete 32K RAM computer system. Since the VCS is used only as a display device, and must necessarily have a less than full-sized keyboard, we wonder why many users would opt to go to a full system. At $90, the Graduate may be a good device to learn programming on, but as a system, we suggest that you keep looking.

Atari's top-of-the-line 1450 XLD featuring a built-in modem and 5¼" disk drive.

Laser by Video Tech

If the ADAM and Sonic computers aren't similar enough, enter the Laser 2001. The 2001 is an "under $300" computer, utilizing the same microprocessor as the Apple II. It offers 80K RAM (64K user RAM, 16K display RAM—same as Coleco and Unitronics, although they won't say so), 16K Microsoft Basic in ROM. The display is 16 colors, 36 x 24 text characters, and offers full cursor control for editing. The display offers relatively high resolution of 256 x 192. The keyboard has "chiclets" style rubber keys and provides multi-function keys (you can get up to three different characters per key, using control keys before typing the letter key.)

The 2001 will offer, as an option, a ColecoVision adapter, allowing the 2001 to accept ColecoVision cartridges (under $70 for the adapter). Of course, you can piggyback the Coleco Atari Module (Module 2) to allow you to play both Atari and ColecoVision games. The system also comes with two joysticks, so that you really don't need to buy anything else to use the computer (except, of course, a cassette recorder/player). The primary storage method is through cassette tapes, running at a relatively slow 300 baud. High memory programs could, conceivably, take up to fifteen minutes to load onto the 2001.

A Centronics printer interface is built into the 2001, which allows you to use any Centronics compatible devices through this port. One of the nicer touches on the 2001 is a dual output arrangement, which allows you to hook the signal either through its RF modulated form to your TV set, or a cleaner, direct video and audio signal to

Video Technology's Laser 2001 personal computer system.

a monitor. Giving you the choice makes good sense.

The operating system is reportedly twice as fast as either the ADAM or the Sonic computers (and faster than most others), although there may be few times when this is really necessary. The manufacturers promise a line of about 60 initial software releases covering entertainment, education, and business as well as professional applications programs. The 2001 is not CP/M compatible, although most 2001 buyers wouldn't really need programs designed in that system, anyway.

On paper, at least, the 2001 appears rather impressive. There was an attention to detail in providing complete information (for example, what that 80K RAM *really* does), with the emphasis in their promotion being information. The 2001 may be the most expensive of the three similar systems, but appears to be, on paper, the most technically proficient.

The Laser 3000 is, in the words of Video Technology, "A completely original Computer System compatible with Apple II software." Taking this as a starting point, the array of features climbs from there. With 64K built-in RAM it is on a level approximately the same as most of this year's new computers. Expansion to 192K ROM (also the largest), a full stroke sculptured typewriter keyboard, and the highest resolution figures (560 x 192), although it may be hard to tell much difference from the other high-end computers.

The 3000 (at under $700) has 4 sound channels and also has an ADSR envelope for complete control of the sound (or music synthesis, if you wish). Microsoft Basic is built in, as are a Centronics printer interface, 80/40 column text display (to see a full-width page), and 8 user defined function keys. The machine is also CP/M compatible and has a convenient numeric keypad for entry of numeric data.

The Laser 3000 also has a full line of peripheral devices, which include printers, disk drives, RS-232 interface, monitor and joysticks. Also available for the system are specially written software for all needs, from education to fun, business and utilities. If the manufacturers can make a go of it in a tough market, the Laser 3000 (intended as a higher quality option to the Apple computers) should prove to be as good a system for home use as it is for purely business applications.

Tomy Tutor by Tomy Corporation

What kind of a computer would you expect to get from a toy company? (Mattel and Coleco excluded, please.) Tomy's unpretentious offering is the Tomy Tutor. The company hasn't claimed that with their machine you can change the world. They don't promise that it will always be all the computer you need. They rather humbly state that the Tutor is "aimed at the computer novice who wants to learn to program, master games and education programs, and create high resolution graphics."

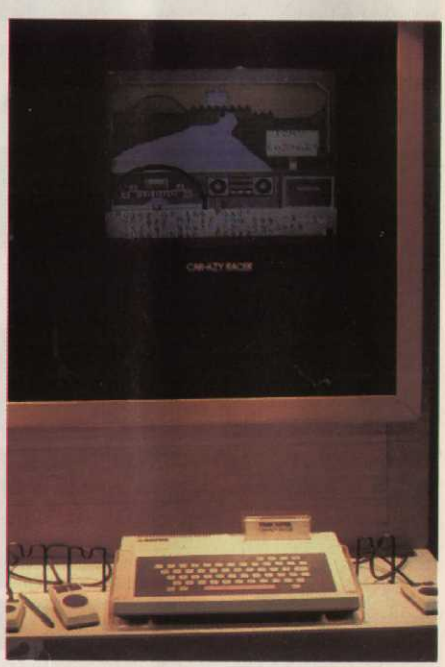
They seem to meet those requirements quite well. For under $150, the Tutor has a fast 16 bit microprocessor (the only other 16 bit consumer computer is the TI 99/4A), 32K ROM, 16K RAM (expandable to 64K), 16 colors and three voice music synthesizers. The keyboard is full sized, with "chiclet" type rubber keys. The video resolution is about on par with most of the better competing units (254 x 192) and display characteristics also match most competitors (32 x 24).

Also built into the computer are Extended BASIC language, a Graphics program, and an internal monitor which checks for system errors. One of the finer features not found on the other computers is a separate video and audio output for connection to a video monitor, in addition to an output for connection to a TV set.

The Tutor is an expandable computer, with a full line of peripherals available. It has a cartridge port for connecting ROM cartridges, but also accepts floppy disks. Software has been designed for anyone from 8 years old on up. Overall, the Tomy Tutor appears to be a very good computer for the money.

Panasonic JR 200 by Panasonic

The JR 200, at about $200, is an interesting mix of bad and good features. Good features first: this unit offers a *full* 32K of usable memory (well, actually 30716 Bytes), with an extra 20K bytes dedicated to the high-level Basic programming language. The usable me-



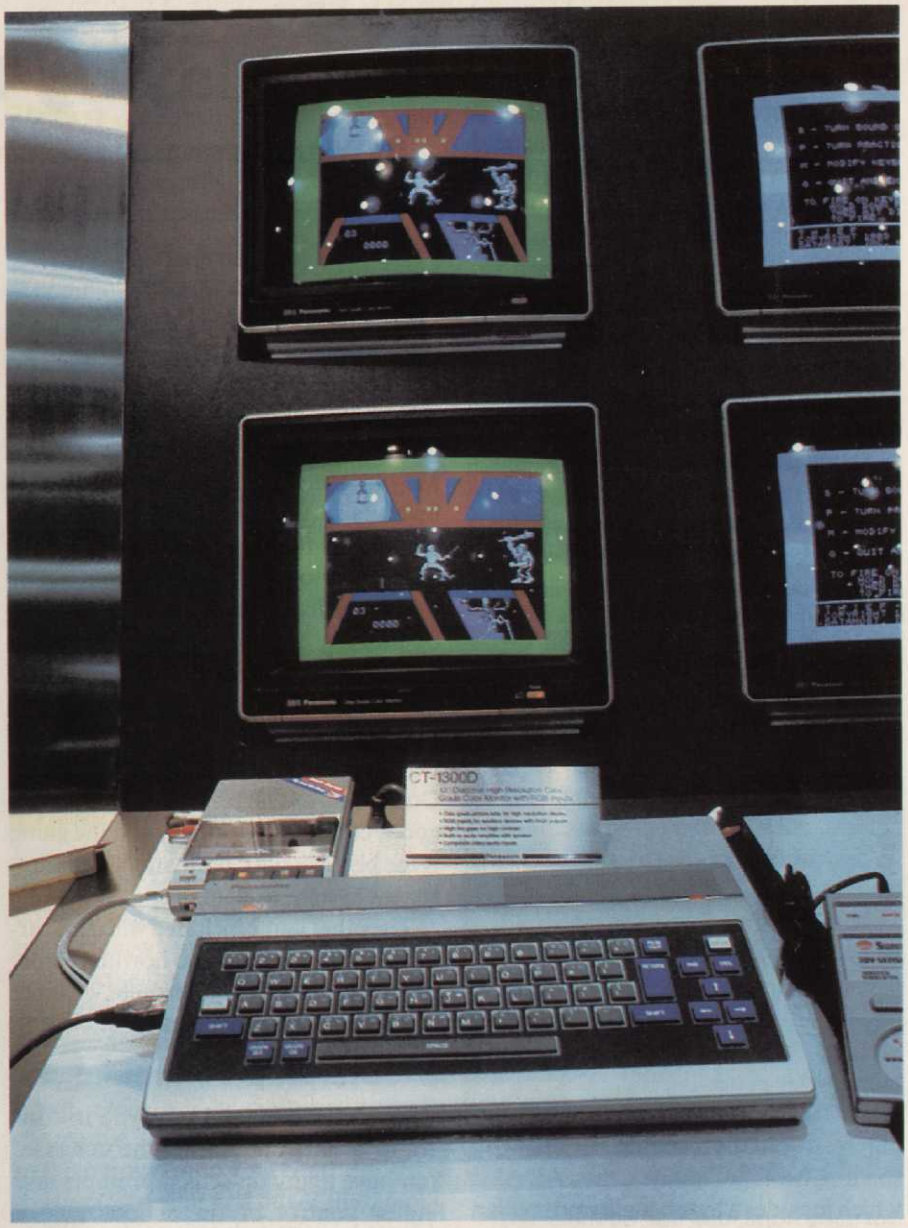
The Tomy Tutor home computer.

mory is about 6-8K bytes less than is actually available for Basic programming in the Commodore 64, and presumably in the 64K Atari machines. Panasonic should be praised for giving the computer an *honest* memory figure. Some of the other good things about the JR 200 include the keyboard accessible graphic characters (as in the Commodore machines), the 6 interval timers (which allow you to be computing more than one process at a time—for example, with the proper software you might be able to program the computer to shut off after two hours of use, or keep track of how many keystrokes you have entered into the machine). According to Dewayne Van Hoozer of software maker Datamost, for a home computer, the Panasonic unit has "good multitasking/multi-environment" functions, which allow it to do many things at once.

The JR 200 has an 8 color, reasonably high resolution 256 x 192 display, with 32 x 24 character text display. There is a built-in Centronics printer port, and provisions for on-screen plotting of data. The system also has a monitor feature, which allows you to control specific areas of memory. There is a 96 key keypad buffer, so that even if you can type faster than the computer can display your input, it's still there keeping up with you.

Some of the nicer touches in the 200 include the absence of a large, bulky, hot transformer (the transformer is inside the 200, and generates a very small amount of heat compared to other units). Also, the unit is sleeker and more attractive than much of the competition.

Now for the bad news. First, the 200, for all its sophistication, won't put sound onto your TV screen or monitor. The sound instead comes through a speaker built into the computer, or through an optional external speaker. There is a volume control located on the back of the computer. Second, the 200 currently is unable to accept cartridge programs, instead requiring input from cassettes. the computer is capable of transferring data at a rate of either 600 or 2400 baud (a measurement of bits per second). At 2400 baud, obviously, the data transfers four times more rapidly than the 600 baud rate, but is more susceptible to error. The better of the two optional Panasonic data recorder/players does a very good job at high speed, the low end unit has problems at 2400 baud.



Panasonic's JR 200 personal computer in action.

I viewed a number of games developed for Panasonic by Datamost, and the load was *very* slow in many games. On the well designed, high memory games, expect to wait 2-3 minutes before you can play a game if you load at high speed. Although the games loaded well, the long wait to play may prove a distinct disadvantage.

An expansion for accepting ROM cartridges should be available soon. This will certainly make the 200 a much more consumer friendly device. A disk drive is also in the works. Using the disk drive as the game storage medium will help to bring the computer right into the marketplace.

If you intend to use the 200 to learn game design, you might look at some other systems. Unlike most of the other computers on the market which allow you to control each pixel (picture element) on the screen (giving you control over about 40,000 separate dots, if you wish), the 200 gives you only character control. What this means is that, in order to design a playfield, and to develop your play characters, you are restricted to defining the picture in blocks of 8 x 8 dots. You are unable to make the pretty pictures that most other computers are capable of, you won't be able to give your characters very high resolution, multicolored appearance, and it is more difficult to detect intersec-

tions and sprite motion.

Games can, of course, be developed for the system. One method uses an Apple computer with data modification before it gets to the Panasonic. But if you own an Apple, why would you need a 200? The 200 is not a game design machine for novice programmers—it requires special tricks to get it to do most things well. The games I have seen for the 200 have been quite good, but may not reach a par with most of the other computers available. If you don't mind waiting for the possible photographic-quality software, and don't really plan to design games on the 200, this is an interesting alternative to comparably priced units. If you don't mind watching the market for a few more months before you buy, it may be well worth your while to wait.

Conclusion

While there are still many computers which haven't been covered here, we've tried to give you an overview of some of the most interesting or most easily located. All are designed to function well in the home, and all are suitable as first computers.

With the possible exception of the Atari series (which is still graphically equal to or better than most of the others), all incorporate new features to make use of their systems simple for new users, while providing expandability for more dedicated uses. Most of the computers would be capable of handling small office functions; the ADAM, which includes a letter quality printer is a definite value if you need letter quality word processing, most of the others have dot matrix printers available, or interfaces allowing you to use any compatible printer you choose.

As game players, most of the machines are potentially as good, if not better than, the best of the dedicated machines (with the possible exception of the Panasonic). Although you can't go too far wrong purchasing any of the machines, it is important to determine a few factors: what the *system* you need will end up costing you; which machine will do what you want it to do in the simplest manner; how well will the system be supported by the manufacturer and independent software suppliers; and, of course, what kind of warranty covers the machine and how easy is it to get service, if needed.

Playing The Field

By Mark Brownstein, Dawn Gordon and Dan Persons

Garbersville

Garbersville is a Missile Command-type game in which you move your gunsite where you want the explosion to go off. Squeeze the trigger, and the explosion widens. If it's a hit, the screen turns red briefly and the missile trail vanishes. Moving the spot takes practice, since it involves a unique series of controls. Control in the left-right dimension requires you to turn the knob at the top of the controller; up-down is accomplished by pushing back or pulling forward on the knob. You have a maximum of 10 missiles which you can shoot at the advancing ballistics. The game is over when Garbersville has been destroyed. On the whole, Garbersville is graphically good, control is adequate, and the game is the best Missile Command-simulation for the system to date.

The other game included with this cartridge is **Ten Pins,** a so-so bowling game. If you plan to buy Garbersville, do it for Garbersville (and not Ten Pins).—*M.B.*

Starship Command

Starship Command puts you in control of a starship cruising the universe. You have many on-screen prompts and limited control of the action. Unlike most other games, the control is entered at the keypad. After some practice, you should get the hang of it. I didn't bother. The other game included in the package is Putt-Putt, a golfing game. Not being a golfer, I didn't bother with this one either.

This brings us to two other interesting entries. Nam Cap (spell it backwards), otherwise known as Puke-Man or Up-Chuck by New Image, is really a very good game. In this game, "the little guy finally ate too many dots," so instead of eating them, you move him around the various mazes *putting dots down.* Occasionally, you will spit out ghosts, which you can't touch, but which your pursuing "ghost" can't go through. You have escape tunnels at the sides of the maze, which your pursuer can't go through, and multiple mazes.

The game looks good and plays well. Losing a life is its own reward in this game, since you go through a routine of flashing lights that is reminiscent of shooting the Wizard in The Incredible Wizard. There are supposedly seven levels of difficulty, with faster action (and less sophisticated graphics), but I was unable to get them all to load. The faster games are tougher and more challenging. This game *is* worth the money.

George Moses is Michigan's resident Astrocade proponent and musical genius. He has programmed the music in some of the games already reviewed, in another game to be reviewed, and in two music tapes about to be reviewed. The first is Scott Joplin's Ragtime compositions. The screen doesn't do much; it lists the title of the song, but turn your ears on. Once loaded, the Astrocade generates faithful renditions of Joplin classics in two or three part harmony. The tones sound somewhat Calliope-like and are a pleasure to hear. The remarkable aspect of this tape is that it continuously plays, only reloading when the Astrocade has run out of song to play. If you like Joplin, the tape is worth the money (although a record will do the same for you, and not tie up your TV set).

Similarly, Moses' Tape of Bach Inventions is a good one for Baroque music lovers. Although both tapes do contain some minor flaws, they are great background music. Another good things about these tapes is the *bonus* tape you get with them. The tape includes an Analog clock (it looks something like your dad's old Timex and keeps accurate time), Astro Zap (an excellent rendering of Space Zap, which rivals Astrocade's Space Fortress cartridge for color and game play), and a home budget keeper program, which is capable of storing ongoing data for actually maintaining a budget. All three bonuses are worth the cost of the original cartridge.

Esoterica has recently released the first third-party Astrocade *cartridge,*

Treasure Cove

Treasure Cove, a Moses-scored, Spectrecade-designed, aquatic fantasy. You must maneuver your dover through treacherous waters to the bottom of the ocean. When your diver picks up treasure, he must bring it back to the surface to get back onto the boat. If he runs out of air, he's had it. If he touches any of the many species of fish cruising the waters, he's also a lifeless form floating to the top.

Game play is challenging and graphics are more than adequate. The music is good for a while, and a provision has been made to allow you to turn it off if you become tired of it (otherwise, it plays continuously throughout the game). If you stay away from the sides of the screen, you won't be surprised by new fish popping in at you.

Treasure Cove is worth buying—if not merely for the game play, at least to support continued production of Rom Carts. This should be the first of many. Esoterica's second Rom Cart offering will be called Blast Droids, and asteroid-like space game, which has been described as an *exceptional game*. We'll let you know in the next issue. —*M.B.*

Mountain King
Atari 400/800
ROM Cartridge

CBS Electronics

You know you're in trouble with **Mountain King** when you read the slip of paper marked "Game Play Addenda" that's been added to the instruction book: "...new players find that the most challenging and, at times, frustrating element of the game is finding the Flame Spirit," it says. I don't mind the games I play being challenging, but "frustrating" is a word I'd rather not see in any instructions or addendas. Unfortunately, frustrating seems to be the functional term in this CBS Electronics ROM cart game for Atari Computers.

Your goal is to be crowned King of the Mountain. To do so, you must use your joystick to maneuver your explorer down into the caverns of the mountain. The explorer runs when the joystick is moved left and right, climbs and descends ladders when the joystick is moved up and down, and leaps when the joystick is moved up at a diagonal.

The action button turns on the explorer's flashlight, which lets him see objects that are normally not visible. The explorer negotiates the horizontally and vertically scrolling caverns, gathering the diamonds that are liberally sprinkled throughout the passageways. When 1000 points worth of diamonds are collected (each trio of diamonds is worth 10 points), the Flame Spirit, a barely perceptible glimmer of golden light, appears somewhere in the mountain. You must locate the Flame Spirit, pick it up, and take it to the entrance of the subterranean temple. There, the Flame Spirit will be taken from you by the Skull Spirit, and you'll be permitted entry to the temple. Climb up on top of the altar, pull the crown onto your head, and drop down off the altar and out of the temple.

It's at this point that the real trouble begins. When you leave the temple, music starts up, indicating that you now have to get to the eternal flame at the top of the mountain to be crowned Mountain King. Off you go. Look out for the gray bats, which show up in profusion and try to steal the crown away from you. Be careful how you leap, because you can easily miss the ledge you're aiming for, or bump your head against the level over the one that you're aiming for. Either case can send you tumbling down caverns, some of them five levels deep. You can't be killed by these falls, but they do stun you, wasting more time.

The music's getting faster, which means that your time is running out. Quick, go for that ledge! Oops, your explorer is standing on top of a ladder and refuses to leap. Move him off the ladder and try again. Nice try, but you bounced off the level above, sending your explorer down a canyon. It takes a second for him to regain his senses. If you can leap from one step-like ledge to another, you might make up for lost time. Up you go, gaining ground and...too late. A gray bat flittered by and casually stole your crown. Now you again have to gather 1000 points worth of diamonds, find the Flame Spirit, and begin the trek upward until either you reach the top of the mountain (not likely), your allotted time limit has been reached (all too likely), or your threshold of frustration has been crossed (even more likely). And that's just the first difficulty level. There are, of course, others. —*D.P.*

The controls are too imprecise, the time limits are too short, and those gray bats are too profuse to give a player a fair chance.

It's a pity, because Mountain King happens to be one of the most visually and aurally stunning games that I've come across, full of superb nuances that heighten the reality of the situation. Diamonds glimmer in the darkness, and bats flutter convincingly. The subtle flickering of the Flame Spirit reaches your subconscious first, so an active part of the game play is to, as they say in *Star Wars*, "let go of your feelings," and permit your instincts to guide you. The sound track is filled with subtle, well thought out effects, as well as a nicely done musical score.

It is heartbreaking to look at this game, with its beautiful graphics and admirable attempts to bring some depth in-

to its game play, and realize that the only emotions I feel are sorrow for what is presented. After all, how many advanced gamers, who won't get frustrated easily are out there?

—*D.P.*

Miner 2049er
Atari 400/800 Cartridge
Big Five Software

The designer of Big Five Software's **Miner 2049er**, Bill Hogue, must have the devil in his soul. How else to explain a game that lures you in with charming graphics and seductively simple game play and then springs traps and pitfalls on you even as your last on-screen surrogate bites the dust.

In this one-or two-player game for Atari home computers, the courageous mounty Bounty Bob, while on an assignment from his superior, Mounty Monty, has become trapped in Nuclear Ned's uranium mine while searching for the fiendish Yukon Yohan.

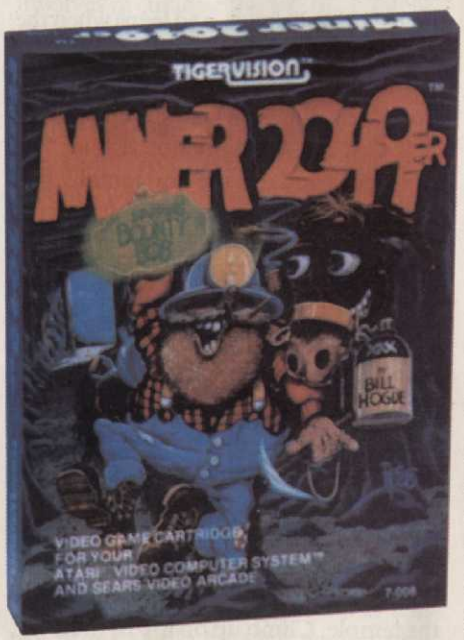
Using your joystick, you must help Bounty Bob claim each mining station, which takes the form of one game screen. Moving the joystick left and right causes Bob to walk across the station's framework, while up and down lets him climb and descend ladders. Bob will jump in place when the action button is pressed, and using the action button when Bob is walking will cause him to leap in the direction he's facing.

When Bob walks over the framework of the mine, the normally hollowed out sections become filled in. In order to claim a station, Bob must fill in all of that station's framework. Blocking his way are the mutants, little radioactive creatures who wander the mine and whose slightest touch means death.

Scattered throughout each section are various supplies, such as goggles, pickaxes, and funnels. Grabbing one of these articles gains you bonus points and briefly turns the mutants into edible "happy creatures" which Bob can eat by running into them. Once consumed, the creatures don't reappear on that screen unless Bob dies and is forced to start the station over. While all of this is going on, a bonus timer at the top of the screen counts down to zero. If time runs out before you can claim a station, it's bye-bye Bob.

"Ha! Child's play," say the Donkey Kong partisans. Okay, I'll concede that, at first glance, Miner 2049er doesn't seem like it could be anything unusual. It's only when you grab the joystick and begin playing that you start noticing the nasty little surprises that Mr. Hogue has tucked away for you. Let's start with that framework. Every single section on every girder has to be filled in for you to advance to the next station.

It's all too easy to think that you have claimed a station, only to discover that you missed one teeny little section way up in some hard-to-reach corner. Don't be in too much of a rush to reach it, though, because while you are hastily jumping the gaps in the structure, you



might forget that the levels have been structured so that Bob can fry himself by brushing his head up against mutants on the next higher level. Also remember that if you bump into a mutant, take a swan dive off a girder, or wind up in some other miner catastrophe, the girders that you laboriously filled in are hollowed out again, and Bob is sent back to square one.

If all of these pitfalls sound overwhelming, rest assured that they aren't. Miner 2049er has been carefully designed so that a player is never confronted with what seems to be an impossible board. The traps may be sneaky, but there's always a way around them provided you keep your eyes open and think before you leap. (A helpful hint: if you're starting a new station that you have not attempted before, use the pause control, the ESCAPE key, to freeze the action and the clock while you plot out your strategy.)

Just so the game doesn't become too familiar too fast, Mr. Hogue has programmed in a stunning variety of stations. I'm not talking about merely shifting a few ladders around from screen to screen, I'm talking about completely different concepts that change the approach you bring to each screen. The game starts off with your basic mining station. Then it goes to a screen with slides that will send a careless mounty bumbling down into the waiting arms of the mutants. From that screen you go to one where the station is broken into tiny multi-level segments, forcing you to leap from section to section like a mountain goat. There are other screens where, in order to get from one level to another you must use transporters, elevators, or cannons. In all there are ten, count'em, ten different screens in Miner 2049er, which is more than both Donkey Kong and Donkey Kong Junior combined.

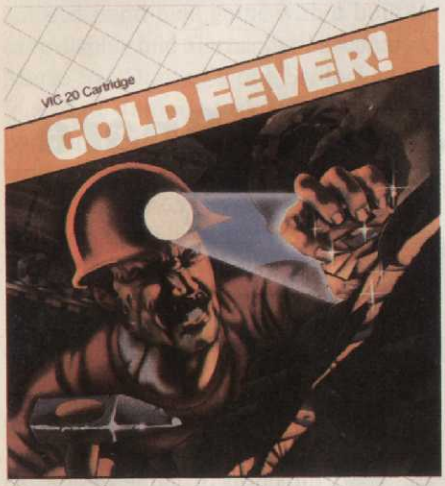
The graphic treatment is detailed and clever, with Bounty Bob shuffling comically across the framework, and squishing down to the thickness of a pancake when he takes a fatal fall. There's an attract mode that includes a rendition of "My Darling Clementine," and a high score board reminiscent of the one from Robotron. Add to this one of the smoothest, most responsive joysticks that I've encountered, and you've got one very well conceived and executed game. Definitely one of the best climbing games for Atari computers. —*D.P.*

Gold Fever!
VIC-20, ROM Cartridge
Tronix

Apparently having exhausted all the possibilities of outer space, game manufacturers are now delving into the realm of inner space. We've had such subterranean contests as Dig-Dug, Bagman, and Miner 2049er. And now Tronix has introduced **Gold Fever!**, a game on ROM cart for Commodore's VIC-20.

Gold Fever! is a test of how low you will sink in order to strike it rich. Piles of gold are scattered throughout a five level mine. Using your joystick, you must maneuver your miner through the passageways, up and down ladders and across gaps, or "chasms" in the floor, to reach and collect the gold. Blocking your way are a large number of boxcars,

which travel horizontally across passageways and drop down chasms. There's also a claim jumper, who looks more like a goblet than a human and travels a random course through the



mine, and a boulder that enters from one end of the screen, travels swiftly across the passageway, and exits from the other end.

Pressing the fire button or pushing the joystick up lets your miner jump over all these obstacles. The miner, however, can't leap chasms. Instead, you have to wait until the boxcar drops down into the chasm and comes level with the floor of the passageway. The miner can then be quickly run from one edge of the chasm, across the boxcar, to the other edge. Picking up all the gold on a screen opens a doorway on the bottom left that leads the miner down to a lower level with faster obstacles and more piles of gold.

You have a limited amount of oxygen in the mine, indicated by a shrinking horizontal bar at the bottom of the screen. If your miner runs out of air before he can escape, you lose one life. There are two types of mines, and nine levels of difficulty altogether. A bonus miner is awarded at the beginning of each odd-numbered level.

Gold Fever! is a pleasant enough game. The mines are challenging without being impossible to complete, and some nice touches have geen added, such as a catchy rendition of "My Darling Clementine." Unfortunately, the folks at Tronix have chosen to use a custom character set for their graphics. This means that the various objects of the game, the miner, boxcars, and even the floors of the mine, are defined and treated like alphabetic characters. Since the VIC has a severely limited amount of on-screen characters, 22 per line with 23 lines per screen, the animation is, by necessity, clunky and joystick control can at times be imprecise. Worse, the poor graphics can lead a player into dangerous situations that, with better animation, could otherwise have been avoided. I have been run over by boxcars and tagged by claim jumpers which landed on me before I could even tell that they were headed in my direction. Eventually, one can learn to avoid these graphic pitfalls, but the fact that they're in the game to begin with is dismaying.

Equally annoying is the fact that the instruction booklet is not going to be winning any awards for clarity. The technique for crossing the chasms using the boxcars is only coyly referred to, while the necessity of making it to a doorway to precede to the next level is not mentioned at all. In fact, I at first assumed that the game was riddled with programming errors, since so many features are not covered in the instructions. It's an accepted, if not totally pleasant, fact of video-game life that arcade games have horribly vague instructions. However, there's no reason why a home game has to follow suit.

There's fun to be had with Gold Fever! Sadly, it's wrapped up in a package that shows just enough carelessness to make one wonder how much effort was actually put into it. If I had copied this game into my machine from a listing in a computer magazine, I would probably be satisfied. But for a ROM cart game with a list price of $39.95, Gold Fever! doesn't quite make it. *—D.P.*

Jumpman
Atari 400/800 Disk
Requires 32K

Epyx

Comprised of thirty different screens and levels of play, **Jumpman** is reminiscent of Donkey Kong in both screen diversity and action. The object of the game is to ascend the multiple levels defusing numerous bombs which are strewn about. Of course no game would be complete without various obstacles (otherwise it would be a snap) to get in your way, and Jumpman has plenty of these in the form of pesky robots, bullets (heat seeking no doubt), jumping blocks, and other assorted nasties that mean sure death if you come in contact with them.

The game has five variations (beginner, intermediate, advanced, grand loop, and randomizer) which take you through many levels of play, and there are eight different speeds as well, with the default speed resting right in the middle at around four or five. Your character has seven lives (you'll need them all), and the scoring system is interesting.

You, and up to three other players, start with a bonus total of 1,500 points each. Every few seconds 100 points are deducted from your bonus score, so the faster you finish the level the more points you get. Also you accrue 100 points for every bomb you defuse. At the end of the game, if out of some

divine luck, you manage to still have any lives left you will be awarded extra bonus points for each.

Jumpman is indeed a challenging game. Timing must be perfect as the player must quickly jump to the various ladders and vines in order not to fall to his death. The graphics aren't as good as Donkey Kong's but nevertheless, the screen does have its own quality, and the sound is quite good, although the same themes are played over and over again. Most amusing is the sequence when you have lost all your lives and the bricks that make up the playfield come tumbling down around you. Jumpman has more than enough screens to keep the player busy. *—D.G.*

LITTLE FEATS
Potent Portables with Features to Spare

by Anne Krueger

Photos by R.P. Sefcik

Although most attention has been understandably focused on developments in game hardware systems and the introduction of new home computer models, hand-helds and tabletops have continued to move ahead. Where once a proliferation of variations were available, the downsized format, admittedly, fell upon hard times. But somehow their impact lingered on, only to be resoundingly resurrected with Coleco's lineup of tabletops. And others have followed this lead as interest and demand continues to grow.

As a result, we can now find more creations to choose from with many getting their inspiration from arcade games. Even new companies are getting into the current action such as Konami, which is bringing its coin-op hits Time Pilot and Tut down to tabletop dimensions. Hoping to capitalize on the popularity of Q*bert, Parker Brothers has readied a small version that should be hitting store shelves by the time you read this.

Add to this Mattel's BurgerTime entry to the fray and it's easy to understand that players are showing more than a passing interest in portable video game entertainment. But there's also another phenomenon which is taking place.

You've seen it happen at the movies, in the arcade and later in home games. Now it's hit the hand-held and portable market. What we're talking about is the sequel. So, if you're a Donkey Kong/Mario fan, you'll love these next three games. Nintendo, working on the theory that there's never too much of a good thing, has released Donkey Kong II and Donkey Kong Jr. in hand-held versions as well as Mario's Cement Factory in a mini-portable.

Having already enjoyed enormous success with some strong arcade games, Nintendo's handiwork has been equally impressive. The company's Game/Watch selections have proven to be quite interesting and surprisingly challenging given their small size. Here are some of Nintendo's newest, including a tabletop model which heralds another direction of game designs to be on the lookout for.

Mario's Cement Factory has a little time display which is easy to set and features an alarm, but the real attraction here is the game play. All of Nintendo's sequels are definitely more difficult than what we've seen before.

There are two skill levels in Mario's Cement Factory. In either, you're Mario who has the unfortunate task of working in a rather hectic cement factory. Cement pours out of two concrete mixers at the top of the screen and into two hoppers; one on the right, one on the left.

Mario's job is to operate the valves which allow the concrete to fall into two more hoppers below. These can only hold three loads, so Mario must then go down and operate their valves to allow the cement to run into the waiting mixer cars. To do this, Mario must be extremely careful in riding the factory lifts that go up and down. You lose a Mario if you fall off the lift (very easy to do) or if you ride to the top or bottom of the factory where there's no place to get off without getting squished. There is a pole you can hang on to for dear life until another lift comes along, but that's pretty dangerous as well.

The drivers of the mixer cars are in jeopardy, too. If you don't empty a full hopper, a beeper gives a warning and then a big blob of cement will fall down

onto a smiling truck driver. Points are awarded for every time Mario drops a cement load into a lower hopper or into the truck. And the cement begins flowing faster as you get better.

Donkey Kong Jr. is a little jungle-colored hand-held game with a built-in time display and alarm. In this scenario, Mario has Donkey Kong Sr. locked up in a cage. Junior's task is to go to help papa and, on the way, must evade snapjaws (alligator-like things) and attacking birds. The intensity of the attackers depends upon whether you've chosen game difficulty level A or B.

In either, Jr. has to collect four keys to daddy's cage in order to get him out. It's a fun game that's easy to learn, but takes a great deal of time to master. If Jr. isn't careful, however, he can fall off the ropes and vines he's traveling across. There's one point to be scored every time Junior evades a snapjaw. Three points are earned if he jumps for fruit and it drops on a snapjaw; six points if it hits one of the nasty birds. You receive 20 points for getting the four keys and freeing papa. Scores earned each time Jr. grabs a key depend upon how fast he got there. Grabbing a key involves jumping while moving Jr. to the left which is a very tricky maneuver to master.

Donkey Kong II is a dual-screen affair in a sleek brown compact case which snaps shut for easy toting. In this game, Jr. again is out to save Donkey Kong Sr. who is locked up at the top of the second screen with Mario standing guard. Junior must brave snapjaws and birds, as well as electrical sparks that travel along wires which must be used to climb up to the top of the screen.

Once there, you have to unlock four chains holding senior prisoner with a key that you get each trip up. The process includes having to traverse back down the treacherous path to collect another dangling key at the bottom of the game.

You lose a life each time a spark touches Jr., a snapjaw bites him or a bird pecks him, proving again that life in the jungle can be rough. You get a bonus Jr. when the score reaches 300 points. Avoiding a spark or snapjaw scores one point. From five to 15 points are awarded each time Jr. opens a lock and 20 points are earned when all four locks are opened.

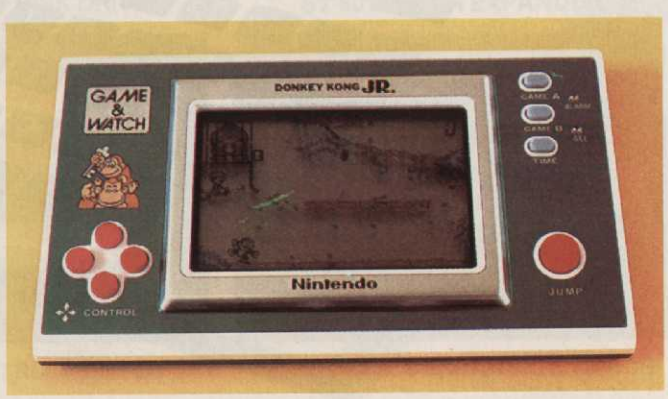
Sky Attack is another Tomytronic 3-D game that hangs around your neck like a pair of binoculars. In this version, your space base is under attack, and the mission is to maneuver your three tanks through the 3-D space, firing laser beams at enemy bombers. It's similar to a Space Invaders type shoot-'em-up, where the bad guys are coming at you and dropping bombs at the same time. You score points by hitting the enemy bombers and win extra points during bonus fights which are played after intervals of 100 points.

The controls are simple once you get your hands on the right place. A button on the left of the unit moves the tanks to the left; a button on the right moves them to the right. Another button controls your fire.

You can take off your fighting clothes and put on a chef's hat in BurgerTime the hand-held rendition of the popular arcade game from Data East which was licensed to Bally/Midway. Mattel Electronics has introduced a new slim yellow game casing design which brings the coin-op action down to size. Basically you're trying to build hamburgers by climbing around scaffolding in a kitchen. Standing in your way are some nasty adversaries including a hot dog, egg and pickle. The objective is to try to drop buns and patties on the pickle and egg in order to score points. While doing this you must dodge the hot dog, pickle and egg, or attack them with pepper. You're given four pepper shakers each time and it's scattered on the bad guys by pushing a button marked pepper. A four-way joystick controller helps you move the chef all over the three-level kitchen.

To drop the hamburger parts, the chef must be standing above them while pushing the joystick down. To start the game, you just poke the pepper button and move the joystick up. I found the mechanics of the joystick to be a little stiff in this game and you must be very careful to realize that when you move the joystick up, down or side to side the chef moves only one step in that direction. You have to move the joystick again and again to keep him moving.

You start with three chefs and get an extra one when you score 5,000 points. If you complete both burgers, your chef celebrates and the screen clears. You can also earn 300 bonus points each time your chef "gets" the ice-cream cone or cup of coffee. You score 250 points and get four new pepper shakers. When the buns and patties drop, you earn 30 points each. ▲



HARD SELL

Plugging into The Spectravideo SV-318

By Mark Andrews

There's more to the Spectravideo SV-318 than meets the eye.

On the outside, the SV-318 looks more like a video game system than a personal computer. Constructed of white molded plastic, it has gray, flat-topped rubber keys that wiggle around when pressed and would make touch-typing a nightmare. This compact computer also boasts its own built-in joystick, located on the right-hand side of the keyboard, just to the right of the computer's "Enter" key.

However, looks can be deceptive. On the inside, the SV-318 is a powerful home computer. It has 32K of RAM, expandable to 256K, and 32K of ROM, expandable to 96K. It has built-in extended Microsoft BASIC, and it's CP/M-compatible. It also has 71 keys, including four programmable function keys, and its graphics and sound capabilities are outstanding.

The SV-318 is a new computer, and programs and accessories for the unit are just beginning to roll off the assembly lines. But more than a dozen peripherals are listed in the SV-318 catalog, along with more than 60 entertainment, educational and household management programs.

In the Chips

The heart of the SV-318 is an 8-bit Z80A microcomputer chip—the same chip used in Radio Shack TRS-80 computers, as well in most non-Apple and non-IBM business computers on the market.

Because it's built around the Z80 microprocessor, the SV-318 is compatible with the CP/M software library, the world's biggest collection of personal computer programs. That doesn't mean that you can just pick up any old CP/M program and run it on the SV-318 without any alterations. But it does mean that CP/M-based programs can be easily modified to run on the SV-318.

So if the unit does catch on, vast quantities of CP/M software could quickly become available.

From the point of a game player, there's another chip in the SV-318—a TI-9918A chip designed by Texas Instruments—that's just as important as the Z80A. The TI-9918A chip is the same graphics chip that's used in the ColecoVision video game system, said Glen DeFreitas, manager of technical services at Spectravideo. And it's the chip that gives the SV-318 its outstanding graphics capabilities, DeFreitas said. "If you've ever played Coleco's video games—games like Donkey Kong, Zaxxon and Smurf—you know what the TI-9918A chip can do," DeFreitas said. "And when the TI-9918A is coupled with a Z80A, it can do even more."

To explain his point, DeFreitas noted that "Atari computers are famous for their graphics capabilities." But thanks

The SV-318 is the computer that put Spectravideo in the limelight. It offers very sophisticated features for as little as $299.

to the capabilities of the TI-9918A chip, some of the SV-318's graphics features are even more advanced than Atari's, he said.

To move objects smoothly around a screen, DeFreitas explained, Atari uses a technique known as player-missile graphics. Atari player-missile graphics allow the programmer to use four players and four missiles. Each player can be displayed in just one color, and can fire single-colored missiles. If no missiles are used in a program, the four missiles that are available can be combined to form a fifth single-colored player.

Spectravideo does not use players and missiles in its graphics system. Instead, it uses objects called sprites. Thirty-two sprites are available and each one can be multi-colored. If a program doesn't call for 32 moving sprites, any sprites that are left over can be used as stationary objects on a screen.

Some of the graphics features of Atari computers are more sophisticated than those of the SV-318, DeFreitas acknowledged. Atari computers can generate 128 different colors, for example, while the SV-318 can display only 16. The screen resolution of an Atari computer display is 320-by-192 pixels (dots of color), for example, while the SV-318 produces a 256-by-192 pixel display. And Atari computers have four audio channels, while the SV-318 has only four. But the SV-318 can produce eight octaves of sound, compared with Atari's four. And the SV-318 is equipped with a built-in joystick—something no other home computer has.

Since the SV-318 uses the same graphics chip as a Coleco game machine, it would appear to be an easy matter to build an adaptor that would allow ColecoVision cartridges to be played on the SV-318. And Spectravideo has indeed designed a Coleco cartridge adaptor for the SV-318. The adaptor, dubbed the SV-603, is expected to retail for less than $70. And by plugging another adaptor into the SV-603 adaptor, it may also turn out to be possible to play Atari VCS games on the SV-318 computer—although DeFreitas said he was not yet ready to comment on that possibility.

The Fountains of ROM

Another remarkable feature of the SV-318 is its memory capacity. The computer comes with 32K, or 32,000-plus typed characters, of random access memory. Of that amount, 16K bytes are user-addressable—in other words, they can be used for writing and storing programs. The other 16K bytes of RAM are used for graphics generation.

The way in which this RAM is organized provides the SV-318 with an extremely versatile graphics package, plus a healthy supply of use-addressable RAM—as much useable RAM as you'll find in an Atari 400, for example, and more than twice as much as the 5K built into the Commodore VIC-20. And with the addition of memory-expansion cartridges, the RAM capacity of the SV-318 can be boosted all the way up to 256K—four times the memory capacity of an Atari 1200 or a Commodore 64, and twice that of the Apple IIe.

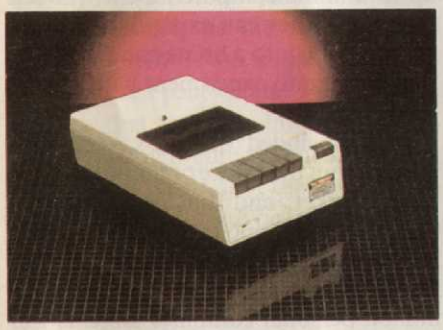
The ROM package built into the SV-318—the programmed memory that makes the computer run—is just as impressive as its RAM. The machine has 32K of built-in ROM, expandable to 96K. Microsoft BASIC—the most popular programming language for personal-computer users—is built right into the computer's ROM package. And SV-318 BASIC, DeFreitas said, is an extended version of Microsoft BASIC that makes it possible for the user to "program a lot of graphics and sound without having to resort to assembly language."

A Gamut to Games

According to executives at Spectravideo, a flood of software and a host of accessories are also being made available to SV-318 owners. "Fourteen hardware peripherals and over 1000 software programs are either available now or will be in the weeks to come," said Harry Fox, president of the company.

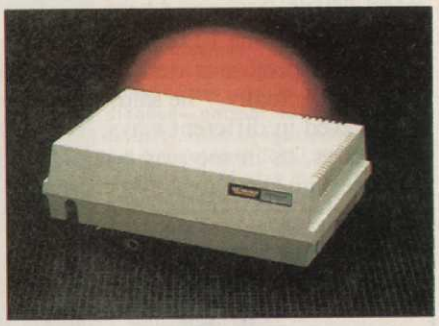
"We have many licensing agreements with major software producers, and you'll be seeing a lot of best-selling games for the SV-318," added DeFreitas. "We have three years' worth of software planned out right now, and more coming. There'll never be a shortage of software for our machine."

Games for the SV-318 that have been licensed from independent software manufacturers include such popular titles as Miner 2049er, Choplifter, Preppie and Frogger, DeFreitas said. In addi-



SV-903 STEREO DATA CASSETTE

SV-902 FLOPPY DISK DRIVE



SV-601 SUPER EXPANDER

SV-105 GRAPHIC TABLET

SV-901 DOT MATRIX PRINTER

SV-800 SERIES EXPANSION CARDS

tion, many original SV-318 games are available, including:

*Frantic Freddy: a ladder game in which a roaring fire in a building must be put out while cats are being rescued. As the level of play increases, the fire gets more and more out of control and the number of cats to be rescued steadily grows.

*Spectron: a Space invaders-style game.

*Armored Assault: a strategy contest.

*Dematrons: a Phoenix-type game.

Some games are being released on cassette tapes, and others are available as plug-in cartridges.

In outlining Spectravideo's plans for new games, DeFreitas pointed out that the company is already a leading manufacturer of cartridges for the Atari VCS video game system, and he said that Spectravideo's designers have been anxious to start creating games for more sophisticated machines. Now, with the introduction of the SV-318, they can finally start expanding their horizons, he said.

Spectravideo games for the Atari VCS have included such successful titles as Gangster Alley, Planet Patrol, Cross Force, Tape Worm, and China Syndrome. More recently introduced VCS games include include Master Builder, Galactic, Manqia, and mc³, a 3-D game. Mc³, which comes with a pair of 3-D glasses, places the player at the command of an intergalactic space ship. The player's mission is to maneuver the ship through a barrage of meteor showers while holding off enemy attack ships.

If mc³ turns out to be a success, DeFreitas said, the 3-D concept will also be used in programs designed for the SV-318. "Actually," he said, "3-D can be achieved in different ways. You can use glasses, as in mc³, or a good programmer can simulate a 3-D effect with background overlays that scroll past the viewer at different speeds. We're experimenting with both of these concepts, and some other as well, in designing new games for the SV-318."

Educational and utility programs being introduced along with the SV-318 include a low-cost word processor, a home budgeting program, a checkbook balancer, a typing tutor program, and a programmer's aid package. DeFreitas explained there's also a program called Music Mentor which enables SV-318 owners to program and play their own musical compositions.

Accessories—and a Step-Up Model

Accessories being offered with the SV-318 include memory expanders, I/O (input-output) expanders, a cassette data recorder, a disk drive, a telephone modem, a printer, and a "Sensor Touch" graphics tablet. Fox said that the graphics tablet, designated the SV-105, "provides a bold new dimension of computer graphics, allowing the consumer to draw color images on the tablet which can be instantly displayed on a television set or monitor. The image can then be saved on a cassette tape or a disk, or printed on a printer." Fox said that the tablet will retail for less than $130.

At the 1983 Summer Consumer Electronics Show in Chicago, Spectravideo also introduced a step-up computer —the SV-328, which has a full-stroke typewriter-style keyboard instead of the "chiclet"-style keyboard of the SV-318. Another difference between the SV-318 and the SV-328 is that the step-up unit doesn't have a joystick built into its keyboard. Instead, it has dedicated cursor-control keys in an easy-to-use cluster, plus a full calculator-style numeric keypad.

The SV-328 has 80K or RAM, expandable to 256K, and 48K of ROM, expandable to 96K. It has built-in extended Microsoft BASIC, a built-in world-processing program, and built-in telecommunications and diagnostic programs. It is compatible with SV-318 software and peripherals, and it has a list price of less than $600.

Fox said that the SV-328 is the perfect computer for the serious hobbyist and "for the small business that doesn't plan to stay that way." Both the SV-318 and the SV-328, he added, "stand alone in their price ranges."

For customers who aren't yet ready to spend $300 on a computer, Spectravideo also offers a third model: the CompuMate 2600, which retails for less than $100 and can convert any Atari VCS video game system into a home computer.

"The CompuMate has a 42-key sensor-touch keyboard that allows the user to write real computer programs," Fox said. "it has 2K of built-in RAM, and can therefore run many different kinds of useful and entertaining programs. Programs can be run and stored using a standard audio cassette recorder. And all necessary connecting cables are provided with the CompuMate system.

The CompuMate, Fox included, is "a great 'test-the-water' product for a price-conscious market. People who had only a limited amount of money for a home entertainment sytem, and spent it on a video game, now won't have to junk their game system in order to move up to a home computer. Now, for less than $100, they can expand their video game system into a home computer that they can use to experiment with a basic level."

Fox concluded that he's very optimistic about the future of the home computer market, and that he expects his company's computers to be three of the most successful home computers ever designed. Overall, he predicted that four million personal computer systems will be sold in 1983, twice as many as were sold last year. "What you will see in 1983," he continued, " is fierce competition in the personal computer market. New models will be appearing in the marketplace that will provide more built-in educational and entertainment features for a lot less money. Because of this increased competition, manufacturers are going to have to get a lot sharper. They're going to have to offer a lot more computer for the money. And they're going to have to get a lot more service-oriented." ▲

A Look at the SV-328

The SV-328 is the upgraded model specially designed for the small business that doesn't plan to stay that way. It's ideal for a young but growing business, as well as for serious home computing. Some of the features include: 48K ROM expandable to 96K; 87 key full stroke keyboard

with ten user definable functions; 3 special word processor keys; a separate numeric keypad and upper and lower case alphabet.

Stearns

(Continued from page 26)

here are our market leaders in personal computers and there are the machines in the installed bases. One year from today none of these machines will be relevant, and they said 'you've got to be kidding. What are we doing in this marketplace?' I said, well that's what the marketplace is. The 99/4A, the Atari 400, the VIC-20 and the rest are all going to be walked away from in the next 12 months, and yet we're just starting our programming on these machines.

VG: Do they understand that you're doing this to become a force and a recognizable factor in the marketplace?

RS: Well, they're understanding to the point that they're profitable. We may not be the dominant force in this industry, but we may be the only company making money in the industry. I mean, 20th Century-Fox isn't making money, Mattel isn't, Atari isn't, Texas Instruments isn't. Nobody is making money except, maybe, Coleco and Activision. And we're still making money. So I said, that's a step in the right direction. You know, we're not a nonprofit organization.

VG: What do you think of the marketplace? How it's been and where it's going? And what do you think of the future of the games business?

RS: I guess I'm very optimistic about the future. Let me contrast this with the hand-held marketplace. People have asked me, Rich, do you think video games are a fad, that are here today and gone tomorrow? And emphatically I say no, because I believe, and you probably do too, that we're dealing with a fundamentally new entertainment medium here. It's at the level of the television in the 1940's and the movies in the 1920's. It's brand-new and it has infinite potential. In fact, the surface has just been scratched.

VG: Since the reliance at this stage is arcade oriented, in terms of looking not only for inspiration but also for licensing and where the directions are—how do you envision that in light of what I call the brink of a new era? With laserdisc games and the development of new hardware systems?

RS: I think the arcades are going to make a quantum jump, which they've got to do. When that happens, it's going to make the translations more difficult. However, the directions don't always have to be the same. It's kind of a leapfrog thing, where, you know, they take two leaps, we take one, they take one, we take two, and there are going to be some awkward times where most of the games out there can't be translated effectively.

And we'll have to rely on our own creativity at that time. But we think the videodisc games are going to happen, probably not until 1986 or 1987 to any significant extent in the home.

I envision the day when my daughter, instead of watching *Winnie the Pooh* as a movie on a video cassette can enter the land of Winnie the Pooh and walk down and through the woods with him, open doors and explore the world. Winnie the Pooh talks to her and says, 'you want to go to the left or right? Let's take the left. It will be a much more stimulating experience.'

VG: Do you think you'll be doing it?

RS: I hope so. Yes. The thing that intrigues me about the videodiscs is the branching capability as well as the realism of the voice and the graphics. I think the real limitation is player controls. Because even though you can create a totally three-dimensional world that you walk through, unless we come up with something better, you've got a joystick and a fire button. This can be a problem because you can't have Winnie the Pooh reach up and pick an apple unless you can control the fine arm movements of Winnie the Pooh's arm.

We've just scratched the surface of what video games can do. Shooting down the aliens, or staying alive for the longest period of time is really very one dimensional. However, as the technology advances and the creativity sees ways to top the improvements, there's going to be many more creative kinds of things that will be done on a video screen.

The potential is phenomenal to do exceptional things with the television medium, both interactive and passive. Now whether we all resort to doing movies like *Porky's* and sitcoms like *Three's Company* in the video game world, which is kind of what we're doing now, doing the obvious instant gratification schlock—which is fun, but there's more than that. And we're hoping that we can do more than that. We're going to at Parker Brothers but the ratings are the consumer. They are the Nielsen Ratings, and if it sells, you've got a hit, and if it doesn't, the consumer is saying no. ▲

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STATS

Top Ten Home Games

This Week 7/23/83	Last Position 7/9/83	Weeks on Chart	Game
1	2	7	Enduro (Activision)
2	1	17	Centipede (Atari)
3	3	21	Ms. Pac-Man (Atari)
4	6	11	Keystone Kapers (Activ.)
5	5	45	Frogger (Parker Bros.)
6	4	43	Pitfall (Activision)
7	7	27	River Raid (Activision)
8	9	19	Zaxxon (Coleco)
9	8	19	Donkey Kong Jr. (Coleco)
10	11	45	Donkey Kong (Coleco)

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These are the best-selling home video games compiled from outlets by the Billboard research department.

Top 20 Arcade Games

	Percentage
1. Pole Position (Atari)	100
2. Star Trek (Sega)	91.3
3. Gyruss (Centuri)	91.0
4. Sinistar (Williams)	77.0
5. Time Pilot (Centuri)	68.0
6. Zoo Keeper (Taito)	65.7
7. Mr. Do (Universal)	65.7
8. Millipede (Atari)	63.5
9. Xevious (Atari)	62.3
10. Baby Pac-Man (Bally)	61.9
11. Galaga (Bally)	61.8

Provisionally Rated (Between a 10-25% response rate)

1. Krull (Gottlieb)	94.8
2. Congo Bongo (Sega)	83.4
3. Journey (Bally)	82.7
4. Buck Rogers (Sega)	79.4
5. Food Fight (Atari)	75.5
6. Bubbles (Williams)	68.1
7. Mappy (Bally)	68.1
8. Bagman (Stern)	61.9
9. Mad Planets (Gottlieb)	59.6

These are the top earning arcade games according to a poll of operators. Those with asterisks indicate operator reponses were between 25-50 percent. © 1983 by Play Meter Magazine

HIGH SCORERS

(Effective July 20, 1983)

Baby Pac-Man	6,685,130	Richard Sattilaro Edison, N.J.
Bagman	3,333,330	Mark Robichek Sunnyvale, Calif.
Buck Rogers	313,330	Bruce Borsato Trail, B.C. Canada
BurgerTime	5,663,200	Tomas Sher San Francisco, Calif.
Centipede	15,207,353	Darren Olson Calgary, Alberta, Canada
Defender	76,377,300	Burt Jennings Durham, North Carolina
Dig Dug	4,129,600	Den Arthur Blackburg, Va.
Donkey Kong Jr.	975,300	Bill Mitchell Ottumwa, Iowa
Food Fight	12,231,500	Scott Shrewsbury Sandy Springs, Ga.
Frenzy	4,789,909	Mike Mann Oak Park Heights, MN
Frontline	668,400	Jeff Peters Upland, Calif.
Gorf	2,220,000	Jason Smith Midland, Calif.
Gravitar	4,722,200	Raymond Mueller Boulder, Colo.
Joust (new chip)	98,565,550	Christian Gindgras Ste-Foy, Quebec, Canada
Jungle Hunt/King	1,510,220	Michael Torsello East Rochester, N.Y.
Liberator	14,232,130	David W. Drake Minden Louisiana
Lost Tomb	1,129,860	David Maines Ottumwa, Iowa
Millipede	4,304,549	Ben Gold Dallas, Tx.
Moon Patrol (7 cars)	1,214,600	Mark Robichek Sunnyvale, Calif.
Ms. Pac-Man	419,950	Tom Asaki Ottumwa, Iowa
Munch Mobile	2,035,540	Ivan Luengas Miami Beach, Fla.
Nibbler	838,322,160	Tom Asaki Boozeman, Montana
Pac-Man Plus	3,203,580	Doug Perkins Dallas, Tx.
Pengo (4 men)	409,990	Kevin Leisner Racine, Wisc.
Pole Position (4 laps.)	66,710 e.t.215.71	Mike Klug and Less Lagier San Jose, Calif.
Popeye	894,260	Eric Ginner Sunnyvale, Calif.
Q*bert	24,000,060	Terry Mann Medford, Oregon
Quantum	1,029,160	Judd Boone Moscow, Id.
Robotron	325,325,325	Robert Star Bonnie Kirkland, Wash.
Satan's Hollow	8,692,035	Richard Ward Madison, Wisc.
Star Trek	2,066,050	Tim Collum Nacogdoches, Tx.
Super Pac-Man	588,436	John Azzis Santa Maria, Calif.
Super Zaxxon	201,700	Gary Hatt Upalnd, Calif.
Time Pilot	4,134,400	Bill Bradham Dubland, Ga.
Xevious	9,999,990	Tim Williams Moscow, Idaho
Zoo Keeper	8,601,900	Eric Ginner Sunnyvale, Calif.

Our thanks to Walter Day Jr., of Twin Galaxies International Scoreboard (226 East Main St., Ottumwa, Iowa 52501). Readers who think they might have a high score should send a self-addressed, stamped envelope to Walter Day who will forward the necessary information and forms. Cities given are the locations where the high scores were achieved.

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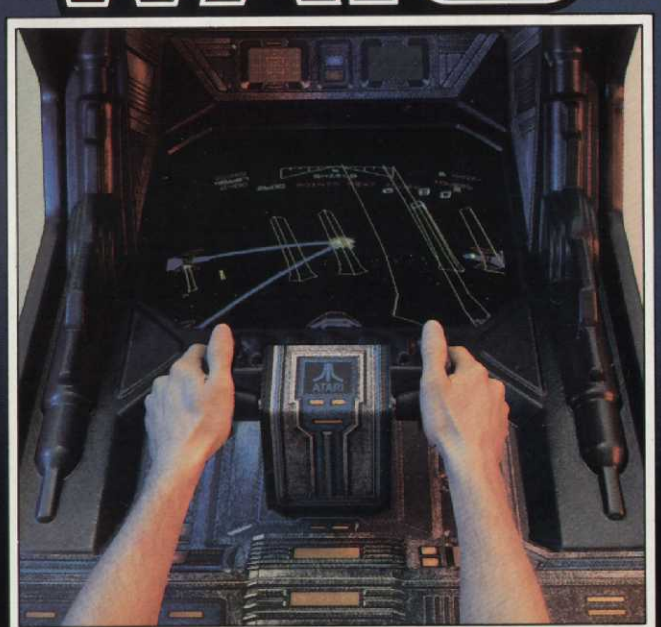

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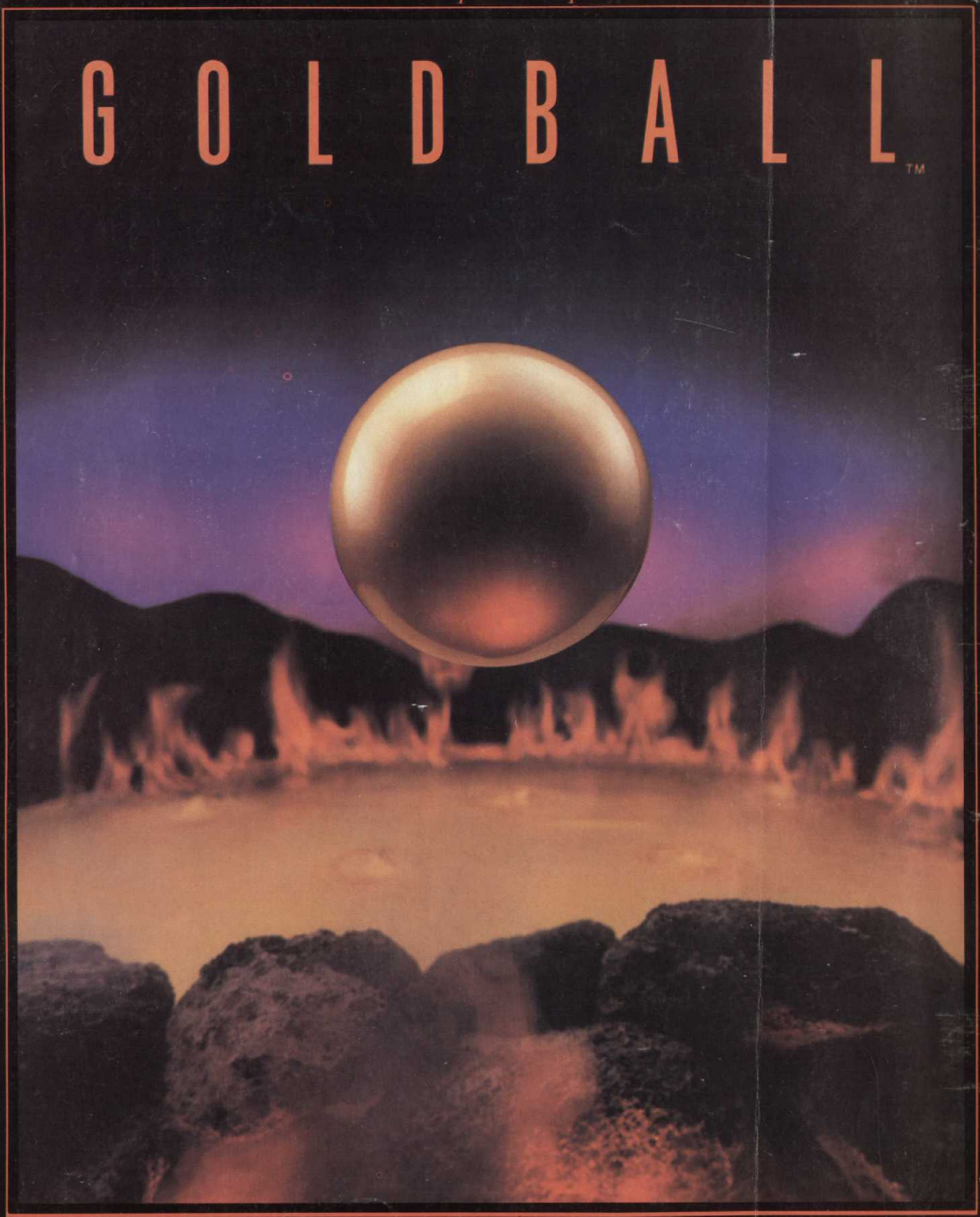

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